

THE MAGAZINE FOR FLEET OPERATORS

JULY 1942

# Chair City Motor Express Co.

Uncrated Furniture Hauling SHEBOYGAN, WISCONSIN

May 26, 1942

Reo Motors, Inc. Lonsing, Michigan

From our experience, we would say that the slogan "AMER-Gentlemen: IGA'S TOUGHEST TRUCK" correctly describes our Reos.

Their ability to keep rolling day-in and day-out makes them the best-paying equipment for our operation. We get peak performance under all road, load and weather conditions.

Our records show exceptionally low operating and maintenance costs. The balanced weight distribution and shorter turning radius of your "MORE-LOAD" design adds to Reo efficiency and economy, as well as the easy mechanical

All in all, we are mighty pleased with our Reos, a fact accessibility. which is reflected by our constantly increasing investment in these rugged units.

Yours for more Reos,

CHAIR CITY MOTOR EXPRESS CO.

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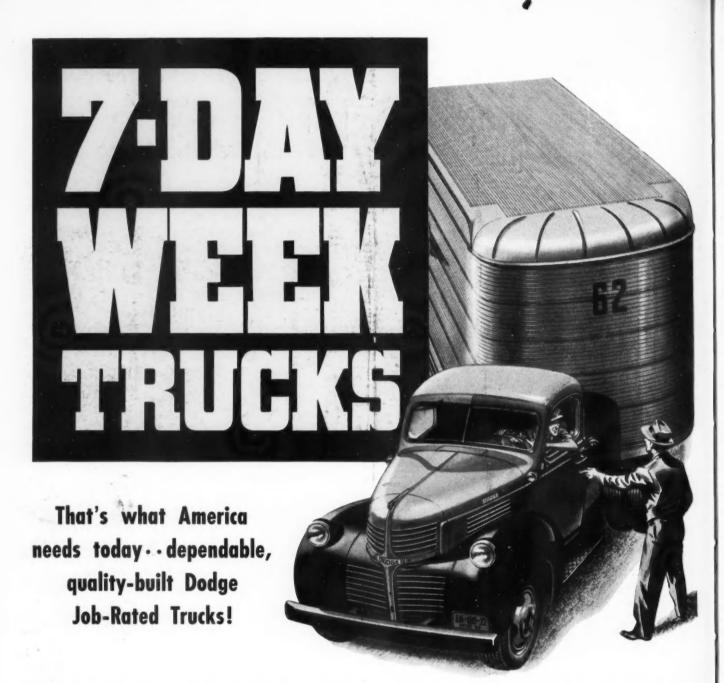
Ship the Unerated Way











• Dodge Job-Rated trucks have "got what it takes" to shoulder the heavy burdens of wartime transportation.

They have ruggedness, born of Dodge Quality . . . long life because of famed Dodge Dependability . . . and they have exclusive Dodge Job-Rated Efficiency and Economy.

Never were trucks subjected to tougher tests. And never has there been greater need for trucks that fit the job—Dodge Job-Rated trucks, with the right-sized engines, clutches, transmissions, brakes and axles for every capacity . . . half-ton to 3-ton gas or Diesel powered—super-powered haulers.

If wartime rationing regulations permit you to buy a new truck, it is sound business to select wisely, buy the best . . .

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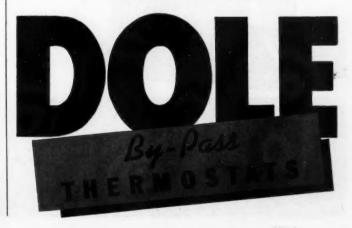
 Fleet Units stopping and starting at all times of the day or night, the year 'round, not only deserve the most complete temperature protection— They need it for economical operation.

Dole By-Pass Thermostats are installed to provide water circulation in a "closed circuit" until correct operating temperature is reached.

Result: Uniform cylinder-wall temperature from top to bottom of the jacket—less condensation, sludge and waste of gas, oil and the motor. These are very worthwhile savings today.

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Vol. LXIII

JULY, 1942

No. 5

#### **High Priority for Parts**

Further evidence that the Government is determined to keep trucks rolling for victory was in the official signature stage during the latter part of June and may be public property by the time this bit of inside dope is published. The dope is that in order to assure motor truck operators a continuing supply of replacement parts the War Production Board will give all truck replacement parts manufacturers an A-1-a priority on necessary materials. This priority will apply to materials for all functional replacement parts, a list of which will be included in the priority order. A functional part, we understand, is one without which the truck cannot operate. The parts without which a truck can operate such as a fender, for instance-are nonfunctional and not covered by the A-1-a priority.

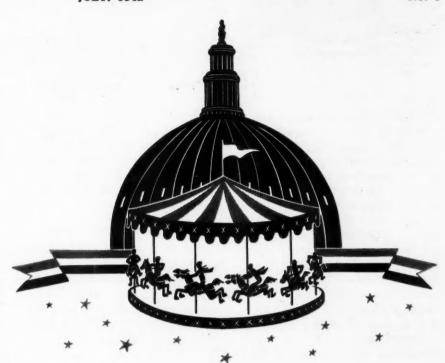
The high priority to be accorded truck parts is recognition that the A-2 priority assigned to parts for medium and heavy trucks is inadequate. Although there has been no shortage of parts, manufacturers were reporting increasing difficulty in procuring materials.

There was even a possibility that functional replacement parts for light trucks and passenger cars would be brought under the A-1-a priority.

If any truck operator has difficulty getting a replacement part—difficulty which causes a truck to be laid up—the Office of Defense Transportation, Washington, D. C., wants to know about it right away. The ODT urges operators to give it all the details in a letter. If operators will cooperate in this fashion, even isolated shortages will be eliminated.

#### **Return Load Stymie**

Conservation Orders 3, 4, 5, and 6 have been slightly amended and additional amendments are contem-



# WASHINGTON RUNAROUND

High Priority for Parts . . . Return Load Stymie . . . Grapevine Reports . . . Civilian Trailer Stoppage . . . Racketeering With Orders . . . Used Parts Turn-In Plan . . . Efficiency Penalized . . . Turney Comet a Casualty . . . A Call to Patriots . . . Truck Applicants Surrender . . . Army Bombs Ration Idea . . . Barriers Remain

by GEORGE T. HOOK, Editor

plated. The 75 per cent return load provision is almost certain to be modified, for a reason which had not previously been anticipated. When the conservation orders were issued common-carrier operators immediately began devising plans for the

setting up of return load bureaus which would enable them to comply with the 75 per cent return load provision. A number of plans have been submitted by the industry to the ODT but no approval has been forthcom(TURN TO NEXT PAGE, PLEASE)



ing. Nor is approval likely because, we understand, the Department of Justice has advised the ODT that if return load bureaus are set up they must be organized, manned and administered by the ODT. The ODT may not delegate its authority. It is supposed that the Department of Justice sees possibilities of collusion, exclusion, favoritism, unfair practices and restraint of trade if private groups control the return load bureaus.

This advice stymies the ODT because it poses a problem involving manpower, money and time which ODT cannot solve at this particular moment. When it issued its orders. ODT of course expected truck operators to accomplish the intent of the 75 per cent return load provision by means of cooperative action. If cooperative action-to the extent of setting up return load bureaus-is out and ODT is unable to provide the necessary machinery itself, it virtually means that the 75 per cent return load provision will have to be modified, otherwise its unreasonableness will encourage non-compliance,

#### WASHINGTON

(CONTINUED FROM PAGE 25)

will saddle the ODT with a task of policing and enforcement which it cannot adequately fulfill, and may encourage disregard of other less onerous provisions. The ODT wants to Keep 'Em Rolling with maximum efficiency and that desirable aim would not be realized if the conservation orders were treated with the same respect as the late Eighteenth Amendment that dried up in the Constitution.

#### **ODT Grapevine Reports**

The ODT is well aware that impractical conservation orders will not achieve the desired ends. The official ODT attitude in this respect was expressed by John Rogers, head of the motor transport division, in addressing the annual convention of the Pennsylvania Motor Truck Association on June 20. Said Commissioner Rogers: "There is no use of putting out an order that every practical man knows cannot be complied with. It is our purpose to treat all carriers . fairly and alike. We are trying to do the best we can-bear with us. We can only do a good job with the cooperation and indulgence of operators." Mr. Rogers indicated that the return load provision of the general conservation orders would be amended, but did not specify the nature of

RUNAROUND

the change. The Washington grapevine furnished a cluster of possibilities, the choicest of which heralded elimination of the loading provisions applicable to over-the-road operations and substitution of a 25 per cent reduction in mileage. Common carriers over the road may be given the alternative of improving their load factor to effect a corresponding saving in tire mileage by means of increased efficiency. If proposed changes are received in time to make this issue, they will be on page 42. Take a look right now.

The effective date of changes is almost certain to be August 1.

#### Civilian Trailer Stoppage?

Although WPB has made no official announcement, Mr. Rogers said in his convention address that trailer production for civilian use would be stopped at the end of June. Production of trailers 5000 lb. gross and over has been unrestricted but in reality production has been greatly curtailed because of the difficulty of procuring necessary materials and because the commercial vehicle freezing order made sales problematical.

#### Racketeering With Orders

ODT officials and leaders in trucking circles have been disturbed and



by ROBERT F. BAHL (Correct answers on page 68)

Here's a whole quiz on just one subject, motor transport in the U. S. Army. Give yourself a rating-10 points for each correct answer-and see how close you come to the 100 mark. The information may come in handy when and if the tall gent with the whiskers points his finger and says, "I want YOU."

The Army moves on signals. What signal would you give if you were a commanding officer and wanted a driver to start his engine?

a. Cross arms in front of body at the waist and move them sharply to the sides. b. Carry closed fist to the shoulder and rapidly thrust it vertically upward several

c. Salute three times.

d. Make a motion as if cranking a truck.

2.

You don't have to be a musician to tell us what "accordion action" means when applied to motorized transport.

a. It is the variation of distances and speeds of vehicles within a column during movement.

b. It refers to an accident in which a truck is damaged beyond repair.

c. It means a spread-out formation.

How many hours of training are required before a soldier is qualified to be an Army truck-driver?

a. 10 hours.

c. 76 hours.

b. 24 hours.

d. 293 hours.

4.

For safety's sake, how far should a truck

disappointed by the racketeering plans and moves to gain personal advantage which followed in the wake of the general conservation orders. The ulterior motives are ascribed to certain common carriers over the road who saw in the 75 per cent return load provision an opportunity to put competitors and private truck operators out of business. Some of the return load bureau plans proposed by common carrier groups have been labeled "racketeering" by more enlightened common carriers themselves. Complaints have also reached Washington from private carriers who said they had been approached by common carriers with proposals to take over their hauling, claiming that such was the intent of the conservation orders. The racketeering plans are being recognized for what they are and will get nowhere, whereas enlightened leadership is conveying to common carriers the gospel that this is no time to seek business advantage and to breed disunity. They are being reminded that if it comes to a showdown the private carrier 85 per cent will prevail over the for-hire 15 per cent.

#### **Used Parts Turn-in Plan**

The primary purpose of the scrap collection program is to bring out of hiding all scrap metal and make it available for use. The War Production Board has just taken a step which may be broadened and thus make certain that in the future the valuable scrap metal represented by automotive replacement parts will be made available on a compulsory basis. The WPB's first step was an order prohibiting distributors, jobbers or retailers from selling an exhaust valve to a consumer unless the consumer turns in a used exhaust valve which cannot be reconditioned. This will assure a steady flow of used valves, which contain high chromium and nickel alloy, into scrap sources where they can be reclaimed.

#### **Turney Comet a Casualty**

The super-conservation order—the Turney Comet—mentioned in this department last month wound up, as we intimated it would, a political casualty. It called for nation-wide gasoline rationing, with the rubber shortage the excuse. It got as far as the President but no further. Aware of Congressional opposition to the rationing of a commodity plentiful in most areas, and, judging by press reports, not sold on the idea personally, the President pigeon-holed the Turney scheme. While Congressmen continued to clamor for facts deal-



Several of these Mack open-body truck buses have been designed to carry 35 war workers. Each side has running boards and grab handles. Roller-type curtains pull down to cover sides

ing with the rubber shortage, the President initiated a nation-wide drive for the collection of old rubber. The President hopes this drive will uncover so much reclaimable rubber that even passenger cars can be supplied. The Turney Comet remains at rest just over the horizon. If the scrap rubber collection drive results in a disappointing tonnage, don't be surprised if the Turney Comet zooms into sight.

#### A Call to Patriots

As part of its program to Keep 'Em Rolling the ODT is now mailing a truck maintenance booklet to every truck owner in the country. Details of this effort are published on page 42 in this issue. The effort is directed primarily at one-truck owners. Its aim is to persuade onetruck owners to have those maintenance jobs done which fleet operators have long recognized as being essential to efficient operation and long truck life. The opinion is held (even among the personnel of ODT) that if this particular effort succeeds it will be entirely due to an (TURN TO PAGE 76, PLEASE)

stay behind the vehicle in front of it? In the Army, the rule of thumb is this . . .

a. No less than 100 feet between vehicles.

b. The distance should be three times the length of the truck.

c. The distance in yards should be twice the speedometer reading.

#### 5.

If you wanted to move a column of trucks just as quickly as possible, which of these methods would you choose?

- a. Open column.
- b. Close column.
- c. Infiltration

#### 6.

Can you tell us who drives which vehicle in the Army?

a. Each vehicle has a permanently assigned driver.

b. Members of a vehicle's crew alternate as driver.

c. The highest ranking member of a vehicle's crew is always the driver.

#### 7.

If a 2 x 4 is a piece of wood, what is a 4 x 2?

a. A company of eight trucks in two parallel columns.

b. A march with four hours' driving followed by two hours for inspection and rest.

c. A four-wheel vehicle with two-wheel drive.

#### 8.

Those who are visioning service in Iceland or Alaska will be interested in this one. Which of these is most reliable as a fuel in extremely cold weather.

- a. Gasoline.
- b. Diesel oil.
- c. Kerosene.

#### 9.

Even before Pearl Harbor, the Army de-

voted a whole chapter in its Field Manual to the care of tires. Listed as first and most important in the care of tires is . . .

- a. Proper inflation.
- b. Correct alignment.
- c. Moderate speed.
- d. Proper starting and stopping.

#### 10.

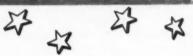
Your commercial vehicles will probably never encounter most of these conditions, but if you were driving an Army truck it would be to your advantage if you were able to match up the following:

- a. Muddy roads.
- b. Swampy or boggy ground.
- c. Passing through sand. d. Fording a stream.
- 1. Apply brakes slightly.
- 2. Decrease air pressure in tires.
- 3. Follow in path of preceding vehicles.
- 4. Select a new track from that taken by preceding vehicles.

TWIST A NUT



KEEP 'EM ROLLING







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8	602	4.6	7.0	1	4		699		7.1			1.7	
6	603	5.3	8.2	1	4		704		5.	1		7.9	
6	905	4.8	5.9		- 4		705 768		7.	8		7.4	
6	607 608	4.8	6.3		8		761		5.	.0		9.5	
6	618	5.4	8.4	1	8		77		7	.0		9.9	
6	620	6.4	7.8		1		77		-	0.0		10.8	
6	621	5.2	7.1	1		В		19		1.0		4.9	
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		722 6.4	82	4.8	4.8	8.1	10.0	6.8	6.9	7.5	7.0	8.0	5.
47th	Street	903 7.5	4.2	4.6	4.4	5.1	7.4	7.8	8.2	7.4		8.3	8.
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	kintown	682 6.3	3 000	5.4	5.8	6.8	9.6	0.0	-				
	stef	729	5.3 5.4	-				-					

Above idling study reveals more miles per gallon result when cutting engine in multi-stop operations on city and suburban routes. Note lower gas consumption despite cold weather periods

# IDLING GUZZLES GAS,

公公公



Howard Ker

IT was no idle gesture on our part when this company undertook a series of studies designed to cut gasoline consumption of its delivery-fleet.

We knew that if we could save a gallon or part of a gallon of gas a day per truck, the total gas savings for our gas-powered fleet of 274 delivery units would be enormous. The double-barreled result of cooperating with the Government in

trying to save gas and in cutting our own gasoline costs made any such effort extremely desirable.

The first step in this direction seemed obvious: it was to tackle the idling problem. It was equally obvious as to where to begin. Besides our door-to-door fleet, which operates strictly in suburban areas, we maintain a fleet of 54 heavy trucks for wholesale and transfer operations, and 85 trailers and 17 tractors for bulk milk deliveries. In addition we operate 366 horse and wagons for city deliveries. We figured that if any substantial savings in gaso-

line consumption could be affected, our best bet was in concentrating on the 274 suburban delivery vehicles.

It has been our opinion for a long time that considerable gas could be saved if drivers would cut the engine every time they stopped to make a delivery. But it was no easy matter to induce drivers to co-operate. In this business our men are primarily salesmen. They have to cover an area of a certain size in which 300 to 400 customers must be served within a limited number of hours. Despite every effort, short of firing a man, it proved impossible to



The automatic shut-off used by the Supplee dairy operates from the handbrake. The ignition con-tacts are closed and broken by releasing or applying the brake. Note contacts open with brake on



# STUDY SHOWS

Tests conducted by a dairy fleet reveal a one-third reduction in gas consumption and longer battery life result from shutting off engine in multi-stop operation

#### by HOWARD KERN

Transportation Superintendent, Supplee-Wills-Jones Milk Co., Phila., Pa.



Showing the inside of the automatic control box which mounts under the hood. Called the Witty Gas Saver, it was designed by Wylle Failing, Supplee-Wills-Jones dairy mechanic

make drivers cut engines with each stop. The most intensive educational process carried on in this direction would fade out within a month with the drivers back to their old habits.

The major difficulty was how to overcome the driver's aversion to execute the motion of turning a switch on and off and pressing the starter each time the driver returned to his vehicle. These were physical operations which drivers could not be induced to do continually. During the period of March, 1942, our safety department conducted a campaign among drivers to cut their engines by posting names of "gas eaters" and "gas savers" and supplemented this effort by using inspectors to check men on the road.

When records showed that a vehicle was a gas eater, we would switch this vehicle with one that had previously been tested. On the same day that the driver would be out with his new vehicle, his own truck would be tested on a parallel run. Results invariably showed that the inspector obtained better mileage on the driver's original truck while the driver was pushing up consumption on his new truck. No matter how we tackled the problem, it was almost always the driver who was at fault. Nevertheless, these efforts to reduce gas usuage showed gasoline consumption for our entire fleet during March, 1942, to 7900 gal.

# EVERYTIME YOU TWIST A NUT THINK OF HITLER

#### IDLING GUZZLES GAS, STUDY SHOWS

(CONTINUED FROM PAGE 29)

This was 600 gal. less than the fleet consumed in March, 1941, and set us to thinking what could be saved if we were really able to go to town on engine idling.

In the past, several automatic shutoffs had been tried but without much success. It was not until two of our own mechanics designed automatic shut-offs of their own that we began getting amazing results. One of these is completely electrically operated with the switch control placed under the driver's seat. When the driver leaves his truck, the engine cuts. Ignition contacts are closed again when the driver returns to his driving position. This device is the invention of William Hemphill, who works in our 48th street maintenance shop.

The other device, described at greater length in this article, was designed by Wylie Failing, who works in our Norristown, Pa., branch. This device is partly electrically and partly hydraulically operated and the control is attached

to the handbrake. When the driver pulls on the emergency brake the engine is automatically shut off. The ignition circuit which is now controlled by the "gas-saver" shut off switch is broken at the emergency brake lever by means of a sliding contact connection attached to the lever and the supporting assembly. To start the engine the driver simply depresses the clutch. To the clutch pedal is attached a two-stage switch. At about two inches of clutch travel the first contact closes a magnetic switch in the "gas-saver" which completes the ignition circuit; at full travel the starting circuit is closed and the engine starts. The starting circuit is taken from the clutch through the "gas-saver" shut off switch to the solenoid. By means of a magnetic switch and a vacuum diaphragm switch the starting circuit is cut off from the clutch pedal during operation.

An oil-pressure switch controls the headlights for night and early morning driving. As the oil pressure drops when the engine is automatically shut off, the pressure switch cuts off the headlights and switches on the parking lights.

The switch answered every requirement asked for by both the management and the driver. Drivers don't have to go through a single extra motion such as turning a key to shut off the engine or throwing a switch or pressing a starter to start and stop. A driver can't even "forget" to turn off his engine. He automatically pulls on his hand brake to stop and cuts the engine. This action can only be side-stepped by parking against the curb, which is unlikely, because it slows up a driver's "get-away."

The control box mounts under the hood and the switch, where contact is made and broken by action of the hand brake, mounts under the dash just below the hand brake position. This is clearly shown in the photo. The switch cuts into the ignition and light cables and the engine installation is simple and compact. Mechanic Failing has a patent application pending for his particular invention and consequently more detailed information concerning the construction of the switch or its installation cannot be given.

Nevertheless, we have been able to prove to our satisfaction that by shutting off the engine considerable gasoline can be saved, particularly in door-to-door delivery. This saving will pay for the cost of the switch many times over .

Actual tests were conducted by se-(Turn to Page 78, Please)

Wylie Failing, Supplee mechanic and inventor of the automatic engine shut-off is shown pointing to the hydraulic feed line leading to the unit

Below is the typical size truck used by Supplee-Wills-Jones Dairy on its start-and-stop routes. Idling tests were conducted on such trucks





#### Cracked Block Repair by J. C. Fisher, Fisher's Service Moorestown, N. J.

Here is a method that we have successfully used many times in the repair of cracked cylinder blocks. First drill a 3/16-in. hole at one end of the crack. One-half of the hole should be over the crack with the remainder in the solid metal of the block. Tap the hole using a 10-32 tap and screw in a threaded rod of soft metal, cut the rod so that you have about 1/16 to 1/8 in. extending above the crack. Drill the next hole in the crack and overlap the plug in the first hole. Continue in this manner until the crack has been completely filled. Now peen over the ends of the plugs that have been inserted in the crack and file smooth.

#### 2. Valve Adjustment by Lew Cripps, Philadelphia, Pa.

Most specifications for valve-tappet clearances give the dimensions "Hot." We all know that it is practically impossible to adjust some "L" head valves while the engine is hot, owing to the difficulty in reaching them without getting burned by the manifold.

Not having "Cold" clearances, I adjust those valves which are easy to reach first, setting them to the "Hot" clearances specified. Then I let the engine cool off, and go back and check the amount of clearance those valves have after they have cooled. Then I set the hard-to-reach valves while they are cold, using the dimensions I obtained from checking the cold clearances of the valves I had previously adjusted "Hot."

If the "Hot" setting was right,



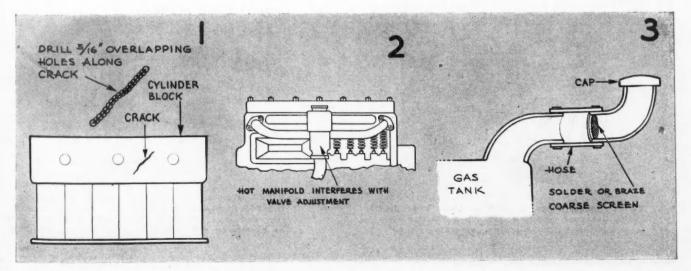
You can do yourself and your country a service by buying United States Victory stamps and bonds. Here is your chance to help win the war by investing in this Democracy. Commercial Car Journal will pay you \$5.00 if you have an acceptable idea that simplifies shop operation. Send in as many ideas as you have to the editor (four will more than buy you a bond). A photo or rough illustration and simple explanation of the idea in your own words are enough. CCJ fixes them up.

whatever clearance they have when they have cooled off is the "Cold" clearance, and is perfectly satisfactory for setting the other valve tappets while they are cold.

# 3. Gas Tank Safety Screen by John M. Kavanaugh Hegeman Farms Corp., Ridgewood, N. Y.

This coarse screen will absolutely

prevent a siphon hose entering a gas tank, thus frustrating stealing gasoline, but will in no way interfere with filling the tank. Remove the gas tank filler pipe from truck by disconnecting hose clamps on rubber hose coupling to gas tank. At lower end of metal filler pipe on inside, solder or braze a piece of very coarse screening with a mesh about 3/16-in. holes, then reassemble.

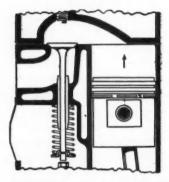




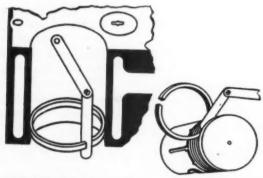


## **RE-RINGING**

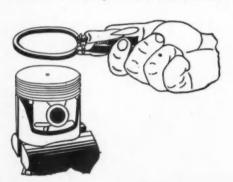
What not to do and, inversely, the right way to go about the job when re-ringing pistons as recommended by the engineers of the McQuay-Norris Mfg. Co. are contained in a host of suggestions on these pages. Efficient shop practices based on these hints will enable shop mechanics to achieve best results in engine maintenance and assure fleet operators the maximum in engine life. Besides these re-ringing don'ts, McQuay-Norris offers a list of reconditioning and rebuilding recommendations in its shop manual "Engineered Motor Repairing" offered free to fleetmen on page 40



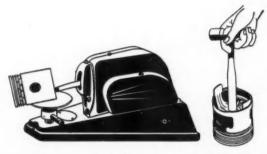
DON'T re-ring motor without grinding valves. New ring will produce an oil seal between pistons and walls but only reconditioned valves and seats will seal the intake and exhaust ports. Remove grit or metal particles from the intake manifold or ports



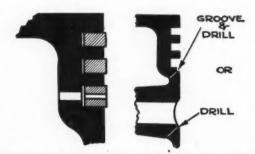
DON'T fail to check both ring-end and side clearances



DON'T distort rings in slipping them over piston heads. Use good ring spreader. Dip piston head down to pin in oil before the ring compressor is put on

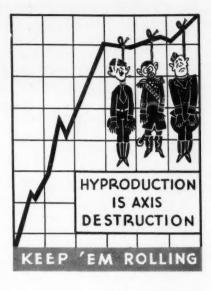


DON'T omit resizing pistons or installing piston expanders if skirt clearance below ring travel exceeds .004. Replace piston with skirt or land cracks

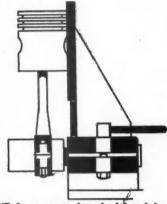


DON'T reuse pistons with top grooves worn wedgeshaped. Replacement prevents oil, blow-by trouble, ring and land breakage. Solid skirt pistons should be chamfered and drilled for additional oil drainage

## DON'TS







DON'T force a re-ringed piston into cylinder if it becomes tight. Remove and adjust ring compressor to hold the rings back in the grooves

### MISCELLANEOUS DON'TS

DON'T attempt to use an engineered ring set in 'an engine that is not specified in the catalog or on the ring set blueprint

DON'T guess at ring set-up. Install each ring in the correct groove as explained on the individual ring disc. Check with blueprint cross-section of pistons and rings to be certain installation is correct

DON'T put up a dirty motor because ring life is proportional to cleanliness. Remove sludge and metal particles from cylinders, valve, chamber, crankcase and pan

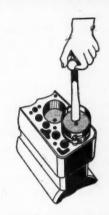
DON'T omit servicing air cleaner and checking booster diaphragm if motor is equipped with a combination type of fuel pump

DON'T run-in a re-ringed motor at less than 25 mph. speed

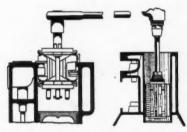
DON'T try to get by with old gaskets. Use tension wrench to prevent distortion of cylinders and valve ports

DON'T neglect to clean radiator and block with a reliable chemical cleaner

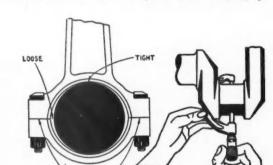
DON'T neglect motor tune-up. Motor performance and life depend on accurate valve and ignition timing and efficient carburetion



DON'T fail to check for misalignment before replacing pistons and rods



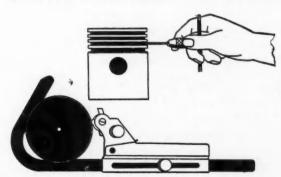
DON'T overlook worn piston pins especially in rifledrilled rods. Don't fit new pins too tight. Be sure to use new lock rings with full-floating pins



DON'T attempt 'to fit bearings by filing the caps and inserts. Do replace worn bearings with the proper undersize determined by "miking" the crankshaft

CAP FILED

DON'T fail to remove cylinder ledges. Ream top ledges before removing piston assemblies to keep cuttings from crankcase and prevent land breakage. Don't file upper outside edge of top compression rings instead of removing ledges. Hone cylinders to remove lower cylinder ledges, distortion and glaze



DON'T install new rings until all carbon is cleaned from ring grooves, drainholes and from under piston head



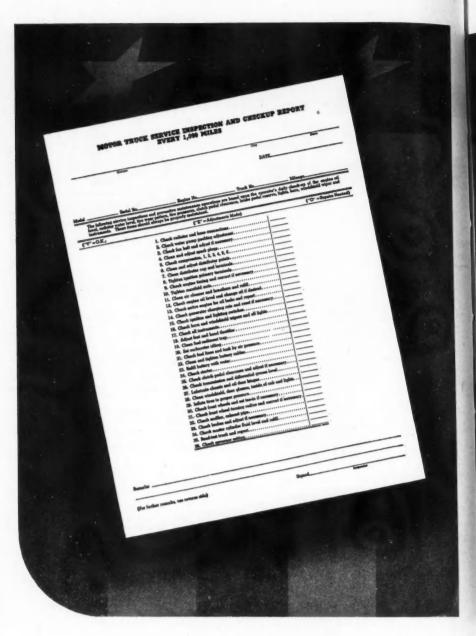


H. L. Cari

UNDER present conditions, motor truck owners are interested primarily in obtaining maximum life, utility, and economy from trucks now

in service. This resolves itself into adapting, converting, maintaining, and conserving equipment to "Keep 'Em Rolling."

Many fleet owners are already finding it necessary to transfer trucks from one operation to another, in some instances over great distances. Obviously in such circumstances many trucks will be placed on jobs for which they were not originally purchased. Such readjustments can be expected to result in substantially



## SERVICE TIPS FOR ALL

increased operating costs unless they are controlled by careful study and constant vigilance. Controlling costs and efficiency is a man-sized job in normal times. Now it is infinitely more difficult.

In this emergency truck equipment will be overloaded and underloaded, overpowered and underpowered; axle gear ratios will be too fast or too slow; transmissions will have too many speeds or insufficient speeds; and all in all the owner will find himself keeping his books with

red ink instead of black—unless he or some qualified person in his organization makes a thorough investigation of the requirements and assigns the best suited available equipment to work.

Knowledge of the laws involved, the type and quantity of material to be transported, the distance to be traveled, condition of the roads, loading and unloading facilities, number of starts and stops, and number of working hours per day, week, or month can be made the basis of a time study which will aid in determining the truck best suited to the work. In some instances it may be necessary to change axle ratios. It may be necessary to combine routes to utilize the body space fully. It may be advantageous to change tire sizes, rework bodies, install different types of clutch and brake linings, change engine carburetion, and otherwise alter the equipment to make its use practical.

Such changes apply not only to trucks being transferred from one

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# TYPES OF SERVICE

job to another or from one territory to another, but also to those trucks that are not giving the satisfaction they should, even though they may have been purchased expressly for the work in which they are now engaged.

Equipment failures are not always attributable to abuse, lack of maintenance, or faulty workmanship. In some cases the right size standard chassis has been selected but special units or parts specifically designed (Turn to Page 70 Please)

Lower speeds, tire size and pressure checks, efficient carburetion, and scheduled PM inspections are aids to vehicle conservation

by H. L. CARR\*

Service Manager, International Harvester Co.

\* Inspection forms shown on these pages are for 1000, 5000 and 10,000 miles respectively. Arranged as 8 x 11-in. forms, fleetmen may reproduce these for their own use in the style shown



Extra capacity filter results in fewer oil changes; lower speeds and oversize tires give longer tire life, and welding salvages parts for this Indiana fleet

by NED GLASS

Maintenance Manager, Indiana Service Corp., Fort Wayne, Ind.

# UTILITY FLEET SINKS TIRE AND OIL COSTS

HESE critical times call for saving—for stamping out waste. For months now our program has been: "don't throw it away—repair, rebuild or weld it. Every service unit must be made to work at full capacity and last longer."

Our efforts in this direction have amazed us. We have been able to reduce our oil consumption 35 per cent by installing special large filters on all our 91 service trucks. This also practically tripled the number of miles between major overhauling.

Before we began using larger filters we had to overhaul the motors on some of our older trucks an average of every 20,000 miles. As an example, say we started out with a new or rebuilt motor. After each 20,000 miles we would have to grind and reseat the valves, put in new rings, and time and tune the motor.

After the next 20,000-mile mark, we'd have to tear the motor down, hone the block, put in new pistons,

rings, pins, rod bearings, and main bearings if necessary. Then overhauling operation number three, after another 20,000 miles was about the same as number one, and so on.

While a new or rebuilt motor will occasionally go haywire regardless of equipment or operation, the intervals between these minor and major repair jobs held stubbornly and expensively at 20,000 miles.

We solved the problem by painstaking crankcase lubrication tests in connection with a special filter during the past four years. We now know to a certainty that this limited range of 20,000-mile engine service between overhaulings was due to two things: (1) Hard service due to frequent starts and stops on city-operated trucks. (2) Faulty lubrication due to failure of previous filter equipment to remove contaminating acid, sludge and abrasive particles in the oil which were pouring over cylinder walls, pistons and bearings, thus causing premature wear on the working parts.

How do we know this? For example, four years ago when these same trucks were at the 150,000-mile point we replaced the filter equipment with a special filter 12 in. long by 6 in. in diameter. After their installation the intervals between overhauling jobs were cut down to the point where we get 50,000 to 75,000 miles of service.

But that is not all. We have eliminated crank case oil changes almost 100 per cent. Some may disagree with the feasibility of this practice, but for the past four years we practically never changed oil except when motors were being rebuilt.

This result is achieved by using the extra large filters which have done an excellent job of taking sediment, water and acids out of the oil.

There are rare exceptions when oil changes are necessary between overhauling jobs, such as an excessive amount of water getting into the crank case through the filter. Regardless of how rigid inspections and tests are, a slip-up may occur and we prefer to change the oil rather than use up two or three cartridges to take out the water and dirt. This practice has enabled us to save more than \$800 on oil per year.

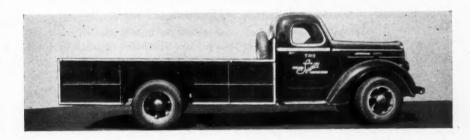
The tests outlined below will show how our cartridge changes have been maintained on a schedule at 15,000 to 18,000-mile intervals on city operated vehicles. Besides, they will show how we stepped up the mileage between overhauls to 50,000 to 75,-000 miles, and 77,000 miles on one of our jobs. But first I want to point out the wide differences between services available under different operating conditions. For example, our city trucks with frequent starts and stops run only between 4500 and 8000 miles per cartridge change, but on highway operations we get up to 30,000 miles and better per cartridge change.

Recently a half-ton service truck which had run 50,000 miles was sent to the shop for a complete motor rebuilding. The oil was changed, too, and it was the first oil change in 50,000 miles. We do not use reclaimed oil. New oil is put in at these overhauling periods.

Under our maintenance arrangement the pan is rarely dropped except when a unit is being rebuilt. The main reasons are that when we go into a motor for any one thing, we check everything such as bearings, rods, rings, pistons, compression and repair or replace any worn part. In this way we have not had to pull a truck out of service for valve trouble alone more than three times a year. When we get through with a job in this category we know everything else is in first class shape. This method does seem to require extra labor at the time, but in the long run our mechanical labor cost is cut more than half by this method. Although it may seem unusual we rarely ever have bearing troublerarely have to go into a motor for that purpose. When the pan is down (TURN TO PAGE 60, PLEASE)



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Former harsh critic of motor transport says he is now thankful for the "devouring dinosaurs" who in pre-war days made his highway travel "nervous and unhappy"

#### by HON. HAROLD L. ICKES

Secretary of the Interior and Petroleum Coordinator

(Excerpted from an address made before the Central Motor Freight Association, Chicago, June 11, 1942)

ENTLEMEN, I might as well make a confession to you right at the start. When I received the invitation to address this convention of motor truck operators, I was immediately overcome by a feeling of foreboding. Like a man falling from the top of a skyscraper, my past life began to hurtle through my mind as a horrifying motion picture. I could see another convention—a convention of the American Automobile Association back in 1939. I could hear a speaker, and he

was saying this: "I have promised some day to give myself the pleasure of driving down a truck-infested road in the biggest armored tank that I can find and bumping those pests from off the road." That's what this speaker was saying, and, as I looked closer, I recognized him: he was Harold Ickes! By this time, I was having chills and fever. I thought to myself: "Oh—Oh! A trucker never forgets! Those fellows are up to no good. I'd better stay clear."

Yet here I am-without even a

bodyguard. I hope that I am not too trusting a soul. You see, I started to think back over those days when I used to set forth timorously of a Sunday to compete for a bit of the road with those monsters which you gentlemen operate, and suddenly it became clear to me that Providence, as it so often does, was working in mysterious ways its wonders to perform. I thought to myself: suppose that I did inhale a few million cubic feet of noxious gas fumes. Suppose that I did shrink in apprehension a few thousand times as devouring dinosaurs roared past me, leaving me teetering on the shoulder of the road. If these happenings made me nervous or unhappy, I know now that it was a price worth paying. An industry was in evolution for which I am now very thankful-and I mean sincerely thankful, in the light of what the transport trucks have meant to us in meeting the oil transportation problems which this war has created.

Your contribution has been so substantial that I should like to take this opportunity of acknowledging it publicly. In fact, I should like to call attention to something which I do not believe is generally understood, and that is this: The railroads have been

# **TRUCKS**





properly applauded for their outstandingly excellent work in moving more than 700,000 barrels of oil daily into the shortage areas of the East. They are using more than 53,000 tank cars to accomplish this. That is a lot of cars-half, in fact, of all of those available in the entire United States for the movement of oil-and they didn't come out of a hat. They were cars that were already in use, principally on short hauls, and before they could be taken out of this shorthaul service, and put into long hauls, something had to be provided to take their place. That something was provided. It was the tank truck.

I have not seen exact figures on the subject, but I think that it is a safe estimate that about 15,000 of the tank cars which now are carrying oil to the East were made available for that service because trucks were found to take their places. If that is true, then tank trucks are indirectly making possible the movement of about 200,000 barrels a day into the Atlantic seaboard. That is a record which entitles you truck operators to feel more than a little proud.

I assume that, in asking me to speak before you this evening, you were interested in hearing about oil. From the standpoint of public interest, of course, the No. 1 oil topic is: "How much are we going to get?" From the standpoint of the Petroleum Coordinator, this is one question that cannot be answered for the reason that it involves matters which are entirely outside of my jurisdiction. For example, if the civilian use of gasoline is restricted on a nationwide scale-even in areas of plentiful supply—as a means of saving rubber tires, that is something which has nothing to do with the availability of oil, and therefore is not within the scope of my authority.

It will make for clarity of thinking and therefore for fuller understanding a nationwide rationing of gasoline in order to save rubber if the facts are kept clearly in mind.

It was found to be necessary—absolutely necessary—to ration sharply the use of gasoline in the Atlantic coast states because of the shortage of transportation. Here in the Middle West, the South and the Far West, there is no lack of supplies to be moved. Nor is there, to-date at least, any lack of transportation, despite the fact that we have taken these thousands of tank cars, with more being drafted every day—to carry petro-

leum products into the Alantic coast states. If rationing is decreed in all of that part of the country which is not now being rationed, it will be solely for the purpose of saving rubber.

The greatest stockpile of rubber in the country today is in the hands of private citizens. It consists of the tires on the wheels of motor cars of every type and description, plus discarded old rubber that ought promptly to be gathered up for further use. If we are to have rubber as an important arm for our fighting forces for the balance of this year and next year, and the next, and the next, if the war continues that long, we must not waste it. It may sound quite logical to say: "My tires are my own: Why can't I wear them out as fast as I please?" Well, one reason is that, if every American did that, there would not be anywhere nearly enough public transportation to replace the private cars that would thus be stalled.

So, if and when a rationing system is decreed for this and other sections of the country that can still buy gasoline freely, you will understand that it is not as the result of representa-

(TURN TO PAGE 80, PLEASE)



A specially selected list of the latest literature —books, pamphlets and catalogs—intended to help fleet operators with their maintenance and operating problems, and more valuable today than ever before. All are free. To get your copies simply fill in the number on the postcard, which needs no stamp, and mail.

#### L9. Carburetor & Brake Service



The results of field service studies have been incorporated in this Stromberg carburetor service manual issued by Bend ix Products. The manual describes overhaul procedure and contains recommenda-

tions for avoiding premature carburetor wear. The Bendix vacuum power brake service manual gives complete details of service and adjustment of the major types of power brakes. This is a valuable shop manual of adjustment charts and specifications which every fleet shop should have for reference. Use the post-paid postcard and get both these manuals.

#### L10. Clutch Service Manual

The new Lipe-Rollway Corp.'s heavy-duty clutch service manual contains important information on clutch service and adjustment. It is replete with comprehensive and graphic illustrations of clutch action and construction and suggests how to get long clutch life. Write L10 on postcard.

#### L11. PM-PC Conservation Plan

The PM-PC cooperative conservation plan sponsored by the White Mofor Co. is completely outlined in this specially prepared booklet. Besides detailing the plan of equitable stock parts distribution and intensified maintenance, the booklet illustrates and explains specific examples of salvagable parts and conservation practices. Write L11 on the postcard.

#### L12. Engineered Motor Repair

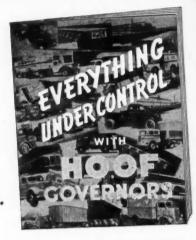
Re-ringing, reconditioning, and rebuilding of truck engines is emphasized in this 32-page shop manual by McQuay-Norris Mfg. Co. It incorporates practical shop practices for performing the various operations relative to each type of overhauling job and the engineered recommendations are derived from actual shop procedures from the point of view of time and equipment and fleet operating problems. An example of the practical type of information available in this manual appears on page 32 of this issue where a series of re-ringing practices are illustrated. Numerous illustrations show the right and wrong way to go about performing the three types of engine repair. This is a manual that every fleet shop should have. Write L12 on postcard and mail.

#### L13. Engine Serice Manual

The Wilkening Mfg. Co. has made available a new manual on engine reconditioning called the Pedrick Service Manual. Issued in two parts, the general sections contains a practical discussion



and guide to the most accepted practices in general engine reconditioning, with special emphasis on piston ring installations. In the supplement or fleet section there are 20 pages of reconditioning facts for specific engines arranged alphabetically by make. The entire manual is generously illustrated with photographs, drawings and charts. Explanations and recommendations are from the practical shop mechanic's point of view. Write L13 on postcard.



#### L14. Savings With Governors

A timely answer to the problem of tire, truck, and parts conservation is contained in this booklet released by Hoof Products Co. The booklet contains engineered charts and cites actual fleet experience resulting in savings through the use of governors. In addition to governor specifications for each type of vehicle, charts indicate proper speed ranges for various size engines. Write L14 on the pastcard.

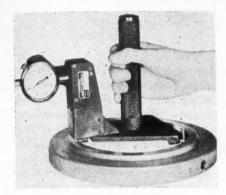
#### L15. Ignition Service Charts

An informative series of ignition service charts in loose leaf form is now available to fleets. These are being issued monthly, perforated for insertion in a special free binder. The bulletins cover such subjects as coil and voltage regulation, cam angle, regulator testing, distributor servicing, ignition questions and answers to problems encountered in daily shop work. For a complete set of such charts as have already been issued, and for new ones to come, just write L15 on the postcard and mail. CCJ pays the postage.

#### L16. 100-Page Tire Handbook

The B. F. Goodrich Co. has prepared a comprehensive and informative handbook on truck tire maintenance. This is a 100-page manual and includes load and inflation tables, load analysis information, causes of tire failures, preventive maintenance ideas and much helpful information for getting longer life from your vehicle tires. Every fleet should have a copy of this valuable reference book on tires which is timely because of the rubber shortage. Use the postcard for your free copy.

# **NEW PRODUCTS**



#### P16. Dial Indicator Gages

Federal Products Corp., 1144 Eddy St., Providence, R. I., announces three new dial indicator gages. These are the inside diameter gages for measuring shallow holes and recesses (illustrated). The indicator of this model 167 P-75 is set back away from contacts to clear obstructions on the machine. The gage is accurate and sensitive for tolerances in tenths of thousands. Model 247 B-69 gage is for inspecting diameter and roundness of spinning rings from one inch to seven inches. In this model the indicator does not make direct contact with the ring, but through a floating pantograph unit which increases sensitivity and protects the indicator spindle. Model 294 P-26 is used for inspecting the distance between faces of crankshaft bearings. Mail card for more information.

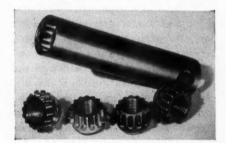
#### P17. Gas Additive & Booster

This gasoline additive and booster is a liquid preparation which is added to gasoline in the ratio of one gallon to 300 gallons of gas. The manufacturer claims it will increase gas and oil mileage, reduce ping and eliminate sticky valves, provide more complete combustion and increase the power of the engine. The latter is said to be achieved by a more complete mixture of gasoline and oxygen. The two major qualities of the additive are its detergent properties which prevent carbon and its "booster" qualities which aid in the combustion and burning of the gasoline through mixing the oxygen chemically so that it remains in combination until it is activated by the electric spark. Parfax Sales, 266 Bryant St., Buffalo, N. Y., has available results of tests of its product in fleet operation. These tests are available in booklet form to fleet operators and can be obtained by checking and mailing the postpaid postcard facing this page.

Here are descriptions of the latest in shop equipment, supplies, repiacement parts and accessories developed by manufacturers for fleet operators. For more details of any product described in this issue fill in the number on the postcard and mail. No stamp needed. Also use the postcard for information on any advertised product.

#### P18. Kathanode Wheel Lock

A wheel lock for prevention of wheel and tire thefts available in a variety of sizes for types of vehicles has been designed by Kathanode Corp., St. Paul, Minn. The lock consists of four studs or nuts machined so that no ordinary socket wrench, pipe wrench or pliers will get suf-



ficient grip for their removal. It is claimed that a special tool available with the lock set must be used for removal of the nuts. Mail postcard for more information.

#### P19. All-Spray Nozzle

To meet the demands for a variable, all-spray nozzle, without a straight stream, a new water spray nozzle, the "Alfcospray," has been introduced by American-LaFrance-Foamite Corp., Elmira, N. Y. From the shut-off position, a slight turn of the tip immediately gives a cone spray of 40 deg. Further slight rotation produces increasing cones up to full curtain of 150 degrees, with reversal back to shut-off without any intervening straight stream. This model prevents any possibility of a solid water stream being applied inadvertently on live electric circuits. The varying cones are also excellent for extinguishment of heavy oil fires, and for general cooling purposes.

Mail postcard for more information.

#### P20. Rubber-Mend for Blowouts

A self-vulcanizing rubber putty that repairs rubber permanently and made especially for the maintenance of tires and tubes is being marketed by the Lange Co., DePere, Wis., under the trade name, "Rubber-Mend." It requires no special tools or methods to apply, and is used without heat. When applied it becomes an actual welded part of the tire or tube it repairs. It cures overnight. The complete package contains a 3½-oz. jar of the rubber putty and a 3½-oz. jar of rubber patching cement. List price is \$1.00. A pint size tin. A pint size tin for tire retreaders, recappers, repairmen, and fleet owners. Fill in and mail postcard.

#### P21. Bomb-Quench

Fighting a magnesium fire safely with the "bomb-quench" is the claim made by its manufacturers, O. H. Adams Co., 2018 E. Thomas Ave., Milwaukee, Wis. "Bomb-Quench" is a powder which quickly softens in the heat and flows over the burning mass thus shutting off the air and stopping combustion. The person extinguishing the fire bomb stands 5 ft. from the bomb, removes the top from the 5-ft. "bomb-quench" tube and sprinkles the powder over the fire. Write P21 on postcard.

#### P22. Graphite Paste

A graphite paste for sealing thread, gasket, and other connections is announced by the Key Company, East St. Louis, Ill. The paste will not freeze, according to the manufacturer, and connections can be opened without damage to threads or gaskets which in turn can be reused. The paste is insoluble in oil, gasoline, kerosene, etc. Mail card for information

[More Products, Page 104]







"U. S. Conservation Corps"

PLANS for conservation of truck transportation by means of a national program of preventive maintenance have been announced by the Office of Defense Transportation and 3,000,000 copies of a 16-page booklet entitled "America's Trucks—Keep 'Em Rolling" are being distributed to further these plans and to organize truck owners of America into a "U. S. Conservation Corps."

The booklet, prepared by the Vehicle Maintenance Section of the ODT Motor Transport Division, presents a practical preventive maintenance program that can be followed by every truck operator. It is hoped that every truck owner will sign the pledge included in the book and display the decal insignia, which will be available also to fleets through the cooperation of various manufacturers.

In addition to pledging the 5,000,000 trucks in this country, efforts will be made to pledge mechanics, garages, dealers, parts jobbers, filling stations and others.

The booklet itself contains recommendations for a PM inspection schedule at 1000, 5000, and 15,000-mile periods. It contains information regarding tire and engine upkeep and illustrates the costly effects resulting from negligent maintenance.

The important phase of the entire conservation plan, however, centers on the fact that it is entirely voluntary, first, to join the "Conservation Corps" and second, to adhere to the preventive maintenance program. It is believed that the pledge itself, and the nature of the entire program are sufficient to impress operators with the necessity of conserving

equipment. The ODT logically assumes that the difficulty of replacing rolling equipment is in itself a strong reminder to truck owners that they must make the most of what they have. Perhaps the most marked results will be noticed among the very small fleets and single truck owners who do not operate scientifically.

The pledge which truck owners are urged to sign is a voluntary one which reads in part: "I hereby pledge that I will regard it as my patriotic duty to do all in my power to prolong the life of any truck in my ownership or care. I will cooperate in a preventive maintenance program. I will do my part to see that mechanical inspections are made and that all minor adjustments and repairs are promptly taken care of to prevent major repairs, with consequent waste of parts and materials. I will see that my truck is driven properly to avoid accidental damage, excessive tire wear and gasoline waste."

A somewhat similar pledge is provided for drivers and mechanics. Once the pledges are properly executed, official insignias will be distributed to the truck owner by companies and suppliers cooperating with the plan. This insignia is a red, white, and blue decalcomania measuring 5 x 9 in. which is to be affixed to the right-hand cab door of the truck. Manufacturers and others who are cooperating to supply truck owners with decals will be able to purchase their supplies from specified decal firms.

To identify authorized decal distributors manufacturers will supply those so designated with a 14 x 20-in. poster indicating that its possessor is an authorized station where decals





### CORNE

may be obtained. Manufacturers will also supply garages and maintenance shops with 10 x 14-in. posters indicating that they are "official stations" where pledges may be obtained and signed.

#### Changes in G.O. 3, 4, 5 & 6

Several changes in the general orders for conservation of trucks and tires have been announced by the ODT. In addition to those announced in COMMERCIAL CAR JOUR-NAL last month, more recent modifications provide that:

In the order setting up the 25mile limit on local deliveries, the order provides that retail deliveries made directly to the consumer bevond this limit are to be considered as local deliveries.

Order No. 6 has been further clarified to permit a local carrier to make an additional delivery on the same day to the same point if the commodity to be transported requires the use of a vehicle exclusively adapted for the transportation of such commodity.

Under another clarification, Order No. 6 permits one delivery a day from any one point of origin to any one point of destination.

Order No. 5, applying to private carriers, has been changed to permit private carriers to submit plans for joint action with other private carriers in order to attain the objectives of the order.

General Order No. 6 has been revised to include driver-salesmen whose operations extend beyond the local delivery areas defined by the

Order No. 6, imposing certain restrictions on local delivery services, now applies in all cases where "prop"U. S. Conservation Corps"—the patriotic symbol of ODT's national maintenance plan of conservation . . . Changes in General Orders . . . ODT Labor Policy . . . Milk Dealers Conserve . . . More ODT Field Men Named

#### REVISED CONSERVATION ORDERS COMING

REVISED CONSERVATION ORDERS COMING

Just as this issue was going to press the Motor Transport Division of the Office of Defense Transportation informed Commercial Car Journal that on Monday, June 29 a public announcement would be made suspending until July 15 the effective date of the return load provisions of General Conservation Orders 3, 4 and 5. Before that date a revision of these orders, now in the hands of the legal experts, will be released. These revised orders will be carried in full in the August issue of Commercial Car Journal. It is understood that the revised orders will modify the original return load provisions, provide for ODT controlled return load clearing houses, and deal more fairly with the operations of over-the-road private carriers.

erty is transported solely for the purpose of sale to retail dealers in a vehicle operated by the seller or an employe thereof," provided the vehicle returns to the point of origin on the same calendar day.

General Order No. 5, covering private carriers engaged in over-theroad deliveries, has been changed to conform with Order No. 6 as revised. The change takes such operations as delivery of bread, groceries, ice cream, soft drinks and tobacco by driver-salesmen out of the jurisdiction of Order No. 5 and places them under the jurisdiction of Order No. 6.

In effect, this means that driversalesmen engaged in such enterprises must conserve tires and vehicles by reducing their delivery mileage by 25 per cent, as compared with the corresponding month of 1941, but will be exempt from requirements imposed on over-the-road operators.

The return load provisions of Orders 3, 4, and 5 were postponed from June 1 to July 1 as previously announced. An amendment to each order was also issued.

Each amendment redefined capacity loads as being those which do not exceed by more than 120 per cent the rated tire capacity of the truck, according to a scale set up in an appendix to the orders, provided the gross load does not exceed the safe capacity of bridges and other structures en route or contravene State or local weight limitations.

The amendments also redefined over-the-road deliveries as all operations except those wholly within a municipality or urban community, wholly within a zone extending 25 air miles from the corporate limits of such a community or less than 25 miles in length.

The amendment to Order 3, covering common carriers, exempted from the provisions of the order trucks engaged exclusively in the maintenance of public utilities, trucks operated exclusively in behalf of the armed forces and trucks operated exclusively in the transportation of repair and service men and their supplies.

The latter exemption also is included in the amendments to Order 4 and 5, covering contract and private carriers.

Another provision in the amendment to Order 5 declared that pri-(TURN TO NEXT PAGE, PLEASE)



#### CONSERVATION CORNER

(CONTINUED FROM PAGE 43)

vate carriers may submit plans to the ODT for joint action in attaining the objectives of the order.

Order 5 now also includes the "circuitous route" provision of Order 3 and 4. This, in effect, requires trucks to use the shortest practicable routes.

#### **ODT Labor Policy**

In order to hold labor troubles to a minimum as a result of possible dislocation of employment due to conservation practices, and to insure fair treatment of employes and achieve necessary conservation as quickly as possible, the ODT urges that the following principles be applied in arriving at settlement of labor controversies:

1. All conservation plans must comply fully with the terms of the

applicable Order.

2. As between feasible alternative plans, either of which will result in compliance, that plan should be adopted which will result in the least burden on employes.

3. Savings directly resulting from the application of an Order should be used to afford employes reasonable protection against losses of

earnings and jobs.

4. Savings remaining after such provision has been made for employes should be passed on to consumers in the form of lower prices.

5. Conservation plans instituted to comply with ODT orders should be limited to duration of the emergency.

#### Milk Dealers Conserve

A survey just conducted among 389 milk distributing agencies throughout the country indicated that most of the nation's milk delivery trucks will be off the streets in less than two years-unless rigid conservation practices were resorted to. Information collected by the International Association of Milk Dealers showed that:

Two hundred and six dealers and dairymen advised the association that they could continue to make retail deliveries for a year, at the most, if no conservation programs were put into effect.

Many of them said they could con-

**Permissible Tire Load** 

The following letter was received from Fred K. Gardiner, general manager of White Line Motor Express, Inc., Newark, N. J.:

"Dear Sir:

"On page 21 of the May, 1942, issue of COMMERCIAL CAR JOUR-NAL, after quoting from General Orders at top of page headed Appendix No. 1, was the following statement, 'General Orders allow 20 per cent additional load-

"This appears directly after quoting that a 20,000 lb. load is to be carried, and I'm certain it has led many to assume that the Order means 20,000 lb. plus 4000 lb.

"It is my personal opinion that 20 per cent is of the gross tire capacity. In this case 20 per cent of 34,500 permits 6900 lb. additional payload instead of 4000 lb. as interred."

(Mr. Gardiner's interpretation is entirely correct. The ODT conservation orders permit a 20 per cent addition to the gross rated load-carrying capacity of the tires.-Ed.)

tinue to operate no longer than six months without cutting down on the use of equipment.

Virtually every dealer questioned said his retail delivery service would have to end within two years if continued on the normal basis.

A majority of the dealers questioned either had instituted conservation programs or were drawing them up at the time the survey was made.

One hundred and fifty-four dairymen had put their deliveries on an every-other-day basis.

The plans in process of adoption when the survey was made also included elimination of Sunday deliveries, discontinuance of call-backs, making of collections in conjunction with deliveries, and conversion to horse-drawn vehicles.

A few dealers combined deliveries with other dealers, and a small percentage of them consolidated routes and put two men on the trucks.

The ODT emphasized, in disclosing results of the survey, that the situation confronting the milk distribution industry is symptomatic of the entire local delivery problem.

#### More ODT Field Managers

Twenty-one additional field managers were recently appointed by the Office of Defense Transportation. The new managers, and the cities from which they will operate, are:

Billings, Mont.-Emmett Fogarty, former engineer for the Montana Railroad Commission.

Milwaukee, Wis. — Russell R. Lynch, formerly on the staff of the Wisconsin Public Service Commission.

Oklahoma City, Okla.—William W. Warren, former manager of the Warren Transportation & Storage Co.

Salt Lake City, Utah—Richard W. Candland, former secretary and general manager of the Utah Motor Carriers Associa-

Wichita, Kan.—W. R. Bartling, former traffic manager of the Universal Motor Oils & Fuels Co.

Albany, N. Y.—Lawrence F. McDonald, former traffic manager of the American

former tra Meter Co.

Buffalo, N. Y.—Floyd B. Piper, former general manager of Direct-Winters Transport. Ltd.

Charlotte, N. C.—LaFayette R. Stallings of Stallings Transfer Service.

Chicago, Ill.—Harry L. Gormley, former secretary-treasurer of the Keystone Law-rence Transfer & Storage Co.

Cincinnati, O.—Henry A. Leachman, former assistant traffic manager of the Continental Freight Forwarding Co.

Cleveland, O.—C. R. Allen, former su-perintendent of trucks for the Auto Haulaway Co.

Des Moines, Iowa— John H. Gillespie, former secretary of the Iowa Motor Carriers Association.

Houston, Texas—J. R. Quattlebaum, former highway insurance investigator.

Minneapolis, Minn.—Frank T. Corcoran, former official of the Minnesota State Department of Highways.

Pittsburgh, Pa.—Charles T. Walker, Cincinnati, O., former assistant general freight agent for the Inter State System.

San Antonio, Texas—John G. Ross, for-mer inspector of law enforcement, chief clerk of the motor transport division and junior examiner for the Railroad Commission of Texas.

Shreveport, La.—John F. Dawson, for-mer assistant chief of the motor transportation division of the Louisiana Public Service Commission.

Toledo, O.—H. Martin Walker, former terminal manager of the Long Transfer

Boise, Idaho-Maurice H. Greene, former attorney for the Interstate Commerce Commission and for the Idaho Motor Transport Association.

Davenport, Iowa—Paul V. Kortkamp, of the Rock Island Storage & Transfer Company.

Nashville, Tenn.—Victor E. Nichol, for-mer district freight agent for Silver Fleet Motor Express, Inc.

#### **Gas Rationing Coupons**

IRST copies of the new gasoline rationing books which eastern motorists will need to obtain fuel were delivered to the Office of Price Administration late in June preparatory to their distribution. July 22, effective date of gasoline rationing under the new plan, will mark the beginning of a perpetual inventory system of gasoline dispensing. Besides the "A" books, which will be of vest pocket size, or small enough to fit into the average wallet, five other coupon books, or six in all, will be available. But only a certain category of user will be eligible for each of the six types of rationing books.

Of primary interest to truck users is the fact that commercial vehicle operators must apply for "S" ration books. These applications must be filed with a local rationing board, or, if the vehicle is operated under an ICC license, at a local office of the Office of Defense Transportation.

It should be noted now that there is no intention whatsoever on the part of the government to curtail truck operations through gas rationing. The idea is to Keep 'Em Rolling and to this end trucks can get gas—but must apply for it as prescribed.

The applications require specific information on mileage requirements for a period of three months and claims for mileage set out in the application must be strictly in accordance with ODT regulations stipulating that commercial vehicle users must keep adequate records of mileage and gallonage.

All "S" books (S-1 and S-2) will contain enough coupons for three months' duration and the applicant can apply for another "S" book at any time after the three-month period is over. However, unused coupons are voided at the expiration of their original three-month period.

The "A" coupon books, available for average passenger car operation, contain 48 coupons, or six sheets of eight coupons each good for one year. Sheets are numbered A-1, A-2, etc., and each sheet is good for two months only. Coupons may be accumulated but cannot be used after the expiration of their specific period.



# RATIONING REPORTS

Gas Rationing Coupons . . . Pipe Lines for the East . . . 41,801 Trucks Released . . . Name 11 ODT Appeal Boards . . . Retreads Rebound

The "B" and "C" books will be issued as additional gasoline allotments if and when a vehicle owner can prove necessity.

The front cover of all books will

contain a description of the vehicle as well as the name and address of the owners. Books must be presented to gas station attendants who

(TURN TO NEXT PAGE, PLEASE)



#### RATIONING REPORTS

(CONTINUED FROM PAGE 45) are to remove the coupons in the amount of gasoline pumped into the tank of the vehicle.

Included in the "S" category are trucks, buses, taxis, federal, state and local government cars and cars held by dealers for resale.

#### Pipe Lines for the East

At long last a 24-in. steel pipe line to stretch from Longview, Tex., to the Salem, Ill., area has been approved by the War Production Board. It took this action after considering the changed situation with respect to oil tankers and military requirements, and after receiving assurances that prompt construction of the line will not interfere with delivery of steel or motor equipment orders for the War and Navy Departments or for the Maritime Commission's shipbuilding program.

The 550-mile pipe line, which will carry crude oil to relieve shortages in the East coast area, will require 125,000 tons of finished steel. Consumption of critical materials, however, will be minimized by the substitution of cast iron for steel in some places, and by the use of seamless steel tubing in place of valuable steel plate. The line is expected to be completed by December 1, 1942.

Another pipe line from Mississippi to Georgia and a combination pipe line and barge canal across Florida have received the approval of the House of Representatives in a bill which the House recently passed. Petroleum Coordinator Ickes also

approved plans for construction of a pipe line across northern Florida consisting of second-hand pipe being excavated in Texas. These lines should aid much in relieving the fuel shortage in the East.

#### Name 11 ODT Appeal Boards

Up until June 27 a total of 11 local appeal boards had been established by the ODT in principal regions throughout the country to pass on applications for permission to purchase new trucks. These boards will take over the duties of the Special Washington Appeal Board which had considered 1583 appeals from decisions of local allocation offices. The Washington board upheld more than 80 per cent of the decisions of the LAO. Six more local boards remain to be named.

The newly appointed local boards are composed of one member representing for-hire carriers, one representing private carriers and one representing the public. Their decisions are subject to final approval of the Allocation Section of the ODT.

Personnel of the appeal boards thus far appointed and the areas which they will serve are as follows:

District Number 1—Maine, New Hampshire, Vermont, Massachusetts and Rhode Island; Appeal Board headquarters, Bos-

, Mass.

Regular members: Allan J. Wilson,

A. Towle Co., Boston; John A. Hassey,
Cities Service Oil Co., Boston; Edmund
Burke, Hale & Dorr, Boston.

Alternate members: Samuel Derby, H. Manyard Gould Co., Walpole, Mass.; Wadsworth Winslow, Boston, Wor-cester & N. Y. State Rlwy. Co., Fram-ingham, Mass.

District Number 3—Eastern Pennsylania, Maryland, Delaware, District of

Columbia, and Northampton and Accomac counties in northern Virginia; Board headquarters, Philadelphia, Appeal

Regular members: J. Albert Kramer, Rabiger-Kramer, Inc., Philadelphia; Gavin W. Laurie, Atlantic Refining Co., Philadelphia; Robert A. Mitchell,

785 City Hall, Philadelphia.
Alternate members: L. A. Rosenthal,
Pyramid Motor Freight Corp., Phila-

District No. 6 — Alabama, Georgia, and Florida; headquartrse at Atlanta, Georgia. Regular members: Jack Berman, Georgia Motor Express, Inc., Atlanta, Ga.; R. A. Cannon, Atlanta Metallic Casket Co., Atlanta, Ga.; Sollcae Mitchell, Four Civilian Defense Region,

Atlanta, Ga.
Alternate member: A. G. Boone, The

A. G. Boone Co., Atlanta, Ga.

District No. 7-Tennessee, Kentucky and Mississippi; headquarters at Nashville, Tenn.

e, Tenn.
Regular members: Jack P. Wehby,
Jack Wehby Motor Express; F. Bernard Evers, American Bread Co.; Sam
K. Harwell, Jr., Neely-Harwell Co. (all
of Nashville, Tenn.).
Alternate members: Charles H. Potter, Southeastern Motor Truck Line;
R. Sadler, Greyhound Bus, both of
Nashville, Tenn.

District Number 8-Illinois, Indiana, and Michigan; Appeal Board headquarters, Chicago, Illinois.

Regular members: Fred L. Faulkner, Armour & Co., Chicago; P. C. Johnson, Central Greyhound Lines, Chicago; Ellsworth F. J. Reilly, Office of Civilian Defense, Chicago.

Alternate members: Joseph H. Wel-ker, Shippers Dispatch, Inc., Chicago; William Fulle vice, Chicago. Fullerton Motor Truck Ser-

District No. 10-Nebraska. Kansas. Iowa Missouri; headquarters City, Mo.

y, Mo.
Regular members: Harry Byers,
Byers Transportation Co., Kansas City,
Mo.; Theodore F. Behler, Columbia
Transfer Co., Kansas City, Mo.; R. P.
Rice, Bryant Bldg., Kansas City,
Alternate members: D. A. Metcalf,
Blue Line Transfer & Storage Co.,
Kansas City, Mo.; Frank E. McDonald,
Missouri-Pacific Transportation Co.,
Kansas City, Mo.; Co., Kansas City, Mo.

District No. 11—Arkansas, Oklahoma and Louisiana; headquarters at Little

Rock, Ark.
Regular members: Righiar members: J. L. Daniel, Ritchie Grocery Co., El Dorado, Texas, W. R. Daniels, H. R. Cook Truck Line, Jonesboro, Ark.; Howard H. Conley, New York Life Insurance Co., Little Rock, Ark.

Alternate members: M. E. Moore, Arkaness Motor Coaches Inc., Little

Alternate members: M. E. Moore, Arkansas Motor Coaches, Inc., Little Rock, Ark.; A. E. O'Hara, Southeast Arkansas Freight Line, Inc., Pine Bluff, Ark.

District No. 12—Texas; headquarters at Fort Worth, Texas.

rt Worth, Texas.
Regular members: J. Tom Miller, Jr.,
Miller Truck Lines, Fort Worth; John
Massenburg, Dr. Pepper Co., Dallas;
W. H. Francis, Dallas.
Alternate members: H. E. English,
Red Ball Motor Freight Lines, Dallas;
J. P. Kittrell, Dixle Coaches, Inc.,
Dallas.

District No. 13-Wyoming, Colorado and Mexico; headquarters at Denver, Colo.

Regular members: S. A. Markley, M. & M. Truck Co., Denver, Colo.; R. S. McIlvaine, Rainbow Bread Co., Denver, (TURN TO PAGE 130, PLEASE)

THE rationalisation of deliveries, or the "Tradesmen's Pooling System" as it is more commonly called, after little more than a month has proved in some cases to be a very real success and therefore a consequent economy in labour, fuel, and wear-and-tear of vans; but it has not been found practical among some classes of retailers.

In London, the scheme came into operation on March 30. No goods other than bread, milk, furniture, coal and medicines, may be delivered to an address distant more than one mile from the store, except in a "pooled vehicle"; and with the exception of newspapers, customers are rationed to one delivery per week. Hotels, hospitals, and kindred institutions, are exempt; and special plans are being formulated to deal with scattered residential estates. The "pooled vehicle" will call only the once, and if nobody is at home to accept the goods a week must pass before they are brought again. Sometimes this results in a week's food rations for a household not being received until the following week, when two lots arrive together.

It has been suggested that when the next issue of food ration books is made, people will be required to register at shops within a short radius of their homes.

Storekeepers help by specifying the day when the purchases will be sent, but customers always want to know the exact time. And this is a difficult—if not impossible—question for the trader to answer, for he cannot know at which houses or how many the shared vehicle will need to call, or even what proportion of its entire load will be represented by his own sales. The result is that the housewife is tied to the house on delivery day each week until the van comes.

Speaking generally, the few weeks of experience of the scheme throughout the country has shown that in order for it to work really satisfactorily, the retail firms concerned need to be in a fair-sized way of business and each the operator in normal times of more than two or three vehicles. In the case of the small shop-keeper who has only one or two delivery vans it has usually been found that attempts to work a "pool" have resulted only in exasperation and loss of time for all concerned—including the customers.

(TURN TO PAGE 97, PLEASE)



# BRITISH REPORT ON RETAIL POOLS

Department store and big retailing establishments benefit from pooling practices; smaller dealers report pooling a hardship

by W. KINGSTON FUDGE
Commercial Car Journal London Correspondent



# THE MASON & DIXON LINE ON

Safety examinations, meetings, awards, bulletins, and road stop stations are aids to drivers eager to remain safe

by W. D. McLAIN

Safety Director, Mason & Dixon Lines, Inc., Kingsport, Tenn.



W. D. McLain

WHAT we think of our drivers is best epitomized by a sign in the Mason & Dixon offices in Kingsport, Tenn., which reads: "Through This

Door Passes the Best Damn Truck Drivers in America."

What we think of their safety achievements will be adequately expressed, we hope, in the results of the National Safety Council contest which just closed June 30. At this time the results have not been released but our drivers were out to win a safety trophy and how well they made out will reflect on how well the company backed their efforts with education, enforcement and inspections.

For the past year our drivers have made every effort to help keep Mason & Dixon's 402 automotive units free from accidents. This meant handling 157 tractors, 180 semi-trailers, 45 straight trucks and a variety of other equipment with the utmost care on the highways where our drivers chalked up 11,000,000 miles of operation.

Whatever freedom from accidents our drivers have enjoyed is due in part to their own ability and in part to our educational program which consists of safety meetings, continuous encouragements in safety consciousness, a rules and regulations manual, an accident manual, pictorial illustrations of safety matters, safety messages attached to payroll checks, advisory committees on safety at each terminal, individual training of drivers, and road condition reports.

Safety meetings, which include members of all interested departments, are held at frequent intervals. These are important meetings featuring a prominent speaker. Twice each year a dinner is held and safety awards presented. Attendance is required of all drivers who are "back in port" at the Kingsport terminal.

At the safety meetings constructive reviews of accidents are held, using photographs and diagrams to illustrate what happened, and why. No driver is put on the spot; the sole purpose of the reviews is to show drivers how they can avoid such accidents. Drivers' comments are solicited.

Usually a National Safety Council motion picture film is shown. Such movies, together with the photographs and diagrams of accidents, always start discussions which the chairman of the meeting directs along constructive lines. There are few better ways to test the soundness of safety theories, and the probable willingness of drivers to accept them, than to expound these same therories in open meeting . . . and listen to what drivers have to say about them. Our drivers are an especially handpicked and highly trained group, and their acid (as well as hilarious) comments on a screwy idea are illuminating.

In addition to the regular safety meetings, we hold many brief informal meetings of safety, operating and traffic department men with the drivers, individually or in small groups. Most of these smaller, in-

### **SAFETY**

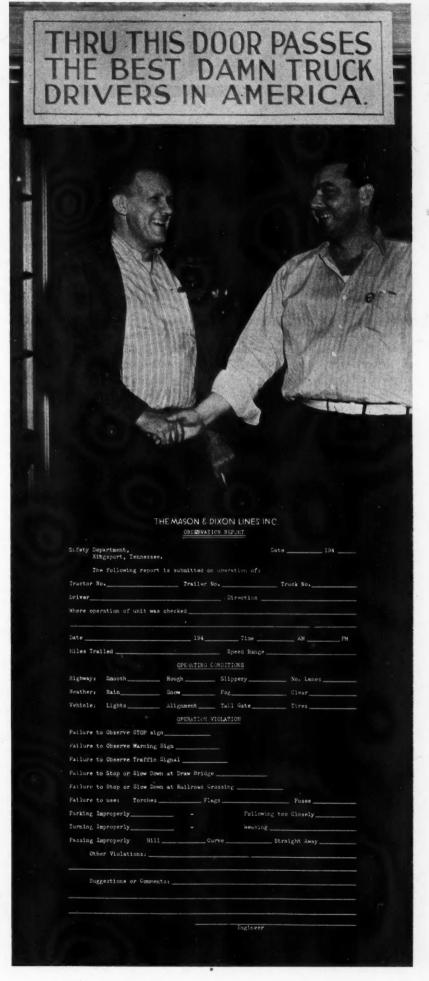
formal meetings are "on company time" and hardly a month goes by but what each over-the-road driver, pick-up driver and helper has attended at least one such session.

So highly do we value the comments and suggestions of our drivers that we keep records of the thoughts expressed at all meetings, formal and informal, and enter these expressions to the credit of the various drivers in the personnel file of each driver. It should be understood that we believe our drivers far above average. Truck driving is, to them, a skilled profession to which they devote constant study, and we not only listen to their suggestions with respect, but also incorporate many of their ideas into our safety program.

No meeting, whether formal or informal, is ever called without a definite program-specific subjects for thoughtful discussion-and there is a new and different program for each meeting. A meeting might start off with a report of some driver who has had the misfortune to scalp a semitrailer at a low underpass, or we might present the problem of what to do about re-routing certain runs when roads are slippery. Whatever the subject, it is new, specific, and gives us the opportunity to benefit from the suggestions of our drivers who are the real authorities on these problems.

(TURN TO NEXT PAGE, PLEASE)

At right are shown T. J. Akins and W. M. Anders congratulating each other over their six-year safety awards. The observation report used to check on drivers is also shown.





# THE MASON & DIXON LINE ON SAFETY

(CONTINUED FROM PAGE 49)

There is nothing secret about our accident records. In fact, we keep a sort of accident index on a big bulletin board in our Kingsport terminal. Names, dates, places, equipment and other basic information about each accident can be found posted on this bulletin board, so that all drivers will know what is going on over our entire system.

We try continually to encourage safety consciousness. The Mason and Dixon News, our company house organ, plays an important part in safety promotion. This publication, issued monthly, is a multilith job, printed on legal size paper and folded in the middle to give 91/4 x 61/2 in. booklet. News items, feature articles and photographic illustrations, as well as some sketches and cartoons, come from all branches of our organization through appointed correspondents who are responsible for producing material, and from volunteer contributors. Although "dedicated to the promotion of safety, a closer bond of association, and the progress of the Motor Freight Industry," our house organ does not over-emphasize safety, referring to this subject only when there is a legitimate "news" reason.

We don't believe in preaching or stating generalities on the subject of safety. We do believe in specific admonitions to meet specific needs. Most of the dashboard slogans furnished by the National Safety Council are exactly in line with our method of safety education. Each truck and tractor cab has a metal container, attached to the dash or above the windshield, in which our shop inspectors insert these slogan cards.

In our shops and terminals we have erected bulletin boards that are used exclusively for safety posters. The National Safety Council posters and the insurance company posters that fit our needs are put up on these boards and changed frequently. These bulletin boards are used for no other purpose and thus receive closer attention than if the readers' interest was distracted by competing announcements.

Having our own sign painting department, we are equipped to install painted signs at strategic points. A good example of such a sign is one recently used at terminal check-out stations, placed where every driver must see it as he drives away with his load. It reads:

PLEASANT TRIP GOOD LUCK — BE CAREFUL It takes a city block to stop at 35 mph.

Valuable safety education is furnished by the I. C. C. Rules and Regulations with which our drivers are required to be thoroughly familiar. In addition, our company issues a Drivers' Safety Manual and Frieght Handling Guide. This comprehensive manual is used in conjunction with the Motor Carrier Safety Regulations and is supplemented by detailed instructions and special bulletins as needed. Included in the manual are chapters on: Contact With the Public; General Instructions; Operating Instructions; Inspection and Care of Equipment; What to Do In Case of Accident; Rules for Bidding Runs; Freight Handling; Safety First; Insurance; Credit Union; Hospitalization and Benefit Fund.

Periodical written examinations are held on these I. C. C. Regulations and our Drivers' Safety Manual, and oral examinations are frequently given groups of drivers with-(TURN TO PAGE 88, PLEASE) PRELIMINATION OF LEGAT OF CHIX

MULTIPRET LAMAGE - ACCIDINTS CHIX

Privator Bo.

Privator Bo.

Date Shopped

Tractor Bo.

Privator Bo.

Drivator Date of Accident

Place of Accident

Flaure and extent of Danises

Flavor Location

Direction Date 194

Flares

Flags

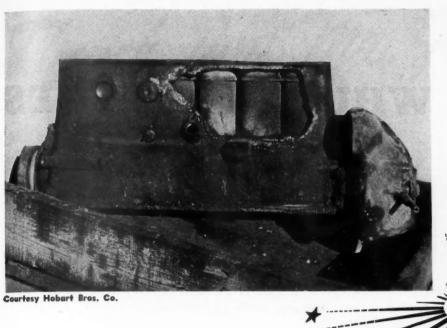
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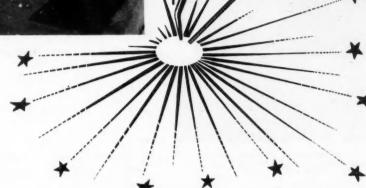
KINDLY F	AVOR THE DRIVER BY FILLING IN THIS CAME. THIS WILL ENABLE THE
MANAGEMANT S	O TREAT RECORD OF DRIVER FAIRLY.
DID YOU SEE A	CCIDENT! WAS ANY ONE HUNT!
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The two forms shown at the top of the page are the shop report of equipment damage and the accessory check form, both measuring 3x4 in. in the original. The accident form used for witnesses is 3x5 in. and the accident tabulation sheet below it is a large form measuring 8x11 for permanent accident records. Above are shown Barney V. Mann, six-year safety winner being congratulated by Safety Director W. D. McLain, assisted by I. N. Taylor, Supervisor of Drivers. Other safety winners are shown on the preceding page where the driver's observation report is also reproduced. This form is 8x11 in.





### **SALVAGING**

# **CAST IRON BLOCKS**

ROKEN cast iron motor blocks can easily be repaired by arc welding, using either a bronze filler rod or a regular cast iron rod. The huge cracked portion of the block shown above was removed and the edges "V'ed" with a diamond point chisel. Next, a plate of 34-in. metal was cut to fit the water jacket. The repair was completed easily in two hours time—using a carbon arc with ½-in. bronze filler rod. A regular cast iron rod can also be used successfully for this type of repair.

When a bronze filler rod is used for the repair of cast iron, the edges of the work should be "V'ed," and the operator should work at a low range of current. The arc should be drawn on the cast iron, allowing it to play on the surface over an area not more than 2 in. square. The bronze should be deposited just as soon as the pores of the cast iron are open. This means just as soon

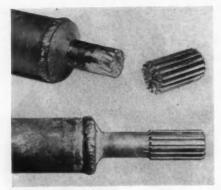
Some tips on welding tricks for successfully reclaiming broken cast iron engine blocks using a bronze filler rod or cast iron rod

as the area begins to turn dark red and assumes a "sweaty" appearance.

After the deposition has started, keep the arc playing on the filler rod, not on the cast iron. Sufficient heat will pass the rod to heat up additional areas as you are ready for them. Deposit the rod with a weaving motion over each 2-in. square area. Care should be taken to make short intermittent welds, peening after every pass. The entire "V" should be covered, one 2-in. area at a time, depositing not more than a

½ to 3/8-in. depth of bronze in each layer. If greater thickness is desired, deposit additional layers, wire brushing carefully between layers.

Successful arc welding of cast iron with cast iron rod depends largely upon the good judgment and patience of the operator. An operator who has had experience with other methods, and who has closed his mind against the possibilities of the arc, is less likely to be successful than the man who is willing to learn, and to practice, new develop-



Salvage possibilities are typified by this sheared "prop" shaft which was satisfactorily welded in perfect alignment as shown

# WHITE LAUNCHES PM-PC PLAN

Preventive maintenance-parts conservation program features periodic check-ups, parts exchange and stock control plan for trucks



White relies on a scientific analyzer in engine tune-up work, eliminating guess work



Scored or worn cylinder walls can be rebored to their original accuracy with a boring bar



White service checks against brake drum wear. For correcting such conditions White's stations use this lathe for grinding brake drums. The above are all a few of White's PM features

HOW to keep a combined fleet of 5,000,000 American motor trucks in transportation service as a war function is the problem which the White Motor Co. is answering with its newly inaugurated co-operative two-way plan to conserve truck equipment and automotive parts. The plan went into effect last month.

Known as the PM-PC plan (preventive maintenance and parts conservation), the idea incorporates White's original PM plan of 10 years standing.

Under PM the company sets up a definite schedule for the periodic inspection and servicing of vehicles based on mileage or elapsed time. This means that at 1000-mile intervals certain basic attention will be given including proper lubrication, adjustment and repair. At 5000 and 10,000-mile intervals more extensive inspections are made and the service steps are necessarily longer. Longer mileage inspections are made up to the time of complete overhaul, the schedule being worked out according to requirement tables. The great value of PM lies in the certainty and efficiency with which trucks are taken care of. This plan is available to operators of all makes of trucks at White service stations throughout the country.

Parts Conservation (PC) is a new

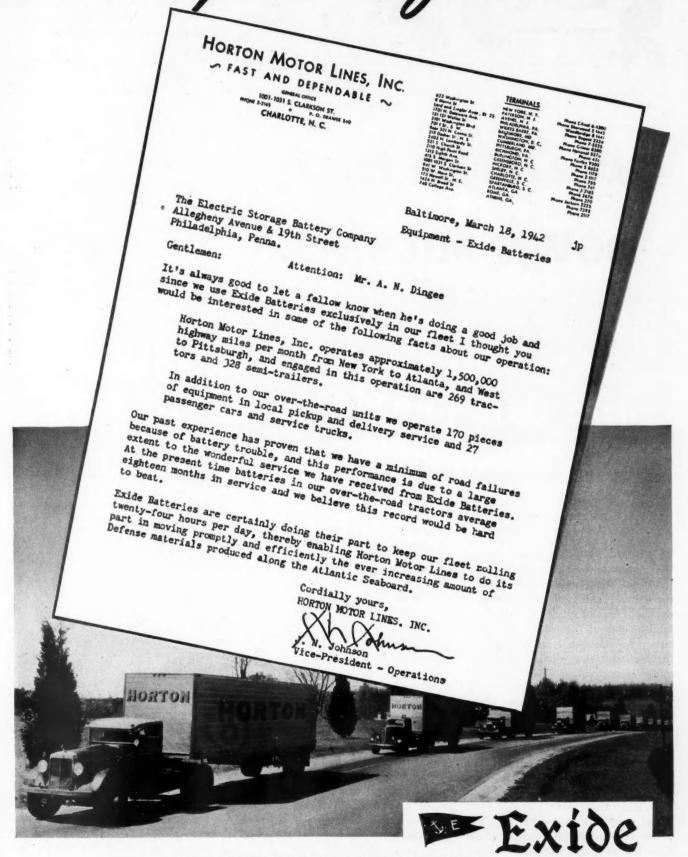
development especially designed to meet the present situation. In addition to the need for the most careful maintenance methods to reduce the rate of wear on parts and prolong truck life, there is an equally great need for conserving new replacement parts.

The Parts Conservation plan is of interest to all operators because parts will be held in central stocks where they will be available to all rather than piled in unbalanced quantities by individual operators. Through this practical control plan, adequate stocks will be maintained by White branches and distributors for the use of all who show a need.

Another step in Parts Conservation is made possible by the fact that White service stations are available with special machines that enable skilled craftsmen to repair worn or broken parts that, in ordinary times, would be replaced by new parts.

As further assurance that stocks will be controlled, purchasers will be required to turn in the old part when a new one is ordered. This policy applies to virtually all replacement parts from spark plugs to rear axles. When turned-in parts are beyond repair, they will be disposed of in accordance with suggestions of the Salvage Division of the War Production Board.

# Thank you Mr. Johnson!



THE ELECTRIC STORAGE BATTERY CO., Philadelphia
The World's Largest Manufacturers of Storage Batteries for Every Purpose
Exide Batteries of Canada, Limited, Toronto

HEAVY-DUTY BATTERIES



# RETAILERS MARK DOWN MILEAGE

Delivery curtailment viewed favorably by retailers with few special services still in need of a solution; drivers a problem

by RANDALL R. HOWARD

PERPLEXING problems which must be met during the present war-emergency period by the delivery and traffic executives of the thousands of retail dry goods establishments of the nation were discussed by delegates from all parts of the United States who attended the mid-year convention of the National Retail Dry Goods Association held at the Palmer House in Chicago from June 15 to 18.

The problem most discussed was what such executives must do and can do to reduce their mileage by at least 25 per cent as required by governmental orders; and at the same time adequately serve the vast consumer public and war workers of the nation. There was also much concern over the governmental rationing of delivery vehicles, gasoline and tires, and worries about the personnel

problem. From the traffic viewpoint, there was much discussion of transportation agencies—what to do about restricted motor truck and rail services, the new I.C.C. status of forwarders, the threatened cutting of free pick-up and delivery service, the increase in shipping loss and damage.

The various session programs were well sprinkled with speakers officially representing the ODT, the WPB and the OPA, and evidently expected to answer perplexing regulatory questions. But the messages of these speakers proved to be largely of a general educational nature, and questions pertaining to specific interpretations were usually parried with such answers as: "See me after the meeting and we'll talk it over"; or "I haven't seen any ruling yet on this point"; or "Write me with a full

statement of the facts in this case."

However, there was among the delegates a unanimous "win-the-war" patriotism and desire to learn about and comply with all essential regulations. A number of times in the informal discussions, individual regulatory officials in Washington, D. C., were openly praised because of their "detailed knowledge about and sympathetic understanding of the problems of the industry," and often the names and Washington telephone numbers of these officials were exchanged. Also, a number of the pioneer department store executives who had passed through what they called "the chaos of World War I," openly and frankly expressed the opinion that the government regulations of today are comparatively much more satisfactory as to general operating conditions.

This viewpoint came out emphatically in a meeting of the Delivery Group. C. E. Norberg, Delivery Superintendent of The Dayton Co., Minneapolis, acted as session chair-"There is no question in the minds of leading retail store delivery officials," said he, "that the consuming public has long been 'service spoiled and pampered,' and that in the competitive race to outdo one another, the stores themselves have been solely to blame. . . . Delivery store men should be grateful to the Government for having made necessary an intelligent and entirely fair change in store service policy. Our eyes have been opened wide-let's keep them that way," he urged.

As to the delivery operations of his own store, normally with 90 to 100 trucks, Norberg explained that there were plenty of initial difficulties in meeting the Government's edict requiring by June 1 a cut of 25 per cent in their mileage, but that the cut had proved out "very satisfactory from every viewpoint with hardly any reaction from our customers."

Minneapolis retail stores first cut deliveries to one trip a day, then to three a week, the public responding to the educational program by carrying many of their small parcels. This program has cut the company mileage by an average of 36 per cent and caused the withdrawal of some delivery equipment; and the layoff of drivers who found immediate employment with local war industries.

(TURN TO PAGE 120, PLEASE)



SAVE STEEL...SAVE STEEL...SAVE STEEL—that's the watchword of every American manufacturer today. We know that the war may easily hinge on how well we conserve this precious metal.

And there is a way—a scientific way of saving steel. Canada uses it on its army trucks and saves up to nearly a ton in the weight of such truck bodies as the one shown above.

Lindsay Structure is the an-

swer. Prefabricated structure that utilizes all the strength in light steel sheets is available for any truck body of any size. It is easily put together by unskilled labor and results are uniform—even when assembled by different body builders.

Investigate Lindsay Structure
—it SAVES TIME—it SAVES
STEEL. Write for information.
Dry-Zero Corporation, 222 North
Bank Drive, Chicago; or 60 E.
42nd St., New York, New York.

U. S. Patents No. 2017629, 2263510, 2263511. U. S. and Foreign Patents Pending



ers of this type for hauling workers to vital munitions plants.

Built by Gardner

Montreal

LINDSAY STRUCTURE

ALL-STEEL

Truck and Trailer Bodies

le

ζ.

### **NEWSCAST**



#### WPB Restricts Chrome & Nickel in Valves; Must Exchange Old for New

Rigid specifications for the manufacture of exhaust valves used in all types of automotive equipment were recently established by the War Production Board in order to conserve large quantities of chromium and nickel

Limitation Order L-128, effective July 1, specifies the maximum amount of chromium and nickel that may be used in the manufacturing formula for automotive exhaust valves.

All manufacturers, the order provides, must use a two-piece, welded head type of construction, permitting chromium and nickel to be used in the valve head only. It is estimated that this restriction alone will result in saving more than 40 per cent of chromium and nickel used in former standard manufacturing practices.

In addition to setting up manufacturing specifications, the order prohibits distributors, retailers or jobbers from selling an exhaust valve to a consumer unless the consumer turns in a used exhaust valve, which cannot be reconditioned. This will assure a steady flow of used valves, which contain high chromium and nickel alloy, into scrap sources where they can be promptly and effectively reclaimed.

Distributors, retailers or jobbers must dispose of returned valves through customary channels within 30 days after receiving them. They must recondition valves whenever possible.

Consumers are prohibited from using in passenger cars or light trucks valves manufactured under the specifications for medium and heavy trucks. This provision is designed to prevent installation of valves of high chromium and nickel content in passenger cars and light trucks.

#### Goodrich Tire Service Plan

A Tire Conservation Service Department recently announced by J. J. Newman, vice-president of the B. F. Goodrich Co., has been in operation several months and is reported by the company to be winning wide-spread approval from fleet operators. It is claimed that under the direction of the Goodrich engineers, tire mileage as well as performance in the truck and bus field is sometimes doubled and that 60,000 mile tires are now achieving 100,000 miles.

The conservation plan is supervised entirely by Goodrich experts who guide, setup records and act as consultants on tires for a fee based on vehicle miles performance

#### Tire Rationing Division Head

Appointment of Dr. Charles F. Phillips of Syracuse, N. Y., to the newly created position of Director of the Automotive Supply Rationing Division has been announced by Price Administrator Leon Henderson.

#### New Forms Issued for Special Permits Under Orders 3, 4, 5, & 6

A new form, known as MT-1, on which applications for special exemption permits to operate under the provisions of the ODT Orders 3, 4, 5 and 6 has been issued. This form supersedes the 3-A application form previously announced. Copies of the form may be procured from the regional directors of the ODT. (A list of these directors will be found on page 44 of this issue.) The regional directors are authorized to grant or deny the special permits. Appeals from their decisions must be made direct to John L. Rogers, director, Motor Transport Division, Office of Defense Transportation, Washington, D. C.

#### CCJ Technical Editor Joins Army

Thomas G. Muir, technical editor of COMMERCIAL CAR JOURNAL, has been commissioned a First Lieutenant in the Army Quartermaster Corps, Motor Maintenance Division. He is temporarily stationed at Holabird Quartermaster Motor Base, Baltimore, Md.

#### Sayre Joins WPB

John S. Sayre has been named commodity specialist in charge of the Automotive and Trailer Equipment Section, Purchase Division, by the War Production Board.

#### Drescher, Dearing Join ODT

Harold J. Drescher, of New York City, for twenty years a specialist in bus transportation law, was made Executive Assistant to John R. Turney, Director of the Division of Transport Conservation.

Charles L. Dearing, of Washington, D. C., a member of the staff of Brookings Institution, has been named consultant in the Division of Transport Conservation.

#### Sales Changes by Exide

The Electric Storage Battery Co., Philadelphia, announces the following changes in the Exide organization: R. L. Sommerville has been put in charge of all automotive and aircraft activities as manager, automotive sales division; T. G. Tynan has been appointed supervisor, replacement sales, and R. S. Gray has been appointed supervisor, manufacturers sales.





H. D. Hubbs (left), sales manager of the Monmouth Products Co., Cleveland, has been promoted to treasurer of the company. Eugene P. Rouge (right) has been appointed comptroller of the company. Mr. Hubbs retains his position as sales manager. Mr. Rouge, a CPA, formerly supervised the company's accounting practices

#### FWD Moves Stock Plant, Names Schmidt General Mgr.

The commercial service stock plant of the Four Wheel Drive Co. has been moved to the Eagle Mfg. Co., an FWD owned company, at Appleton, Wis. All orders for replacement parts should be addressed to the company, Eagle Division, at Appleton. R. H. Schmidt has been appointed the Eagle plant's general manager.

#### No Time Limit On Tank Truck Operation; Larger Jobs Save Tires

The Office of Defense Transportation has made it clear that no order has been issued or is contemplated at this time to require tank trucks engaged in the movement of bulk petroleum to be operated any set number of hours per week. Operators in some sections of the country apparently believe that they are required to keep their tank trucks, regardless of size, on the road at least 130 hours a week, the ODT said.

In areas where a shortage of tank trucks exists, the larger available units should be operated at least 130 hours a week, according to tank truck experts in the ODT's Division of Motor Transport. This would leave 38 hours a week for servicing and maintenance.

To illustrate its point that the larger trucks consume less rubber per gallon of petroleum delivered, the ODT explained that three 2000-gallon trucks would be equipped with tires containing a total of approximately 1116 lbs. of rubber, or 18.6 lbs. of rubber per 100 gallons of capacity. A 6000-gallon tractor semi-trailer is equipped with tires containing approximately 763 lbs. of rubber, or 12.7 lbs. of rubber per 100 gallons of capacity. Tire life is not affected.

#### U. S. Rubber Denied Tires

The United States Rubber Co. was refused permission to purchase four new truck tires for use at its plant at Chicopee, Mass. With 369,549 new tires stored in its warehouses, and after manufacturing tires for more than a generation, the news, to say the least, was quite a blow to the executives of the company.

The decision of the local rationing board listed the tires as being pretty thin, but nevertheless suitable for retreading. Permission was granted by the board for the retreading job.

(TURN TO PAGE 58, PLEASE)



# 80 TON PAYLOAD

Safely Guarded by Dependable
MIDLAND AIR BRAKES!

This trailer, semi-trailer and truck tractor used by the Southwestern Portland Cement Co. hauls eighty tons of rock each trip from quarry to mill. This is, to our knowledge, the largest payload transported by truck and trailer equipment any place in this country. Midland Air Brake equipment is used throughout.

For dependable power brake operation, insist upon MIDLAND. Long life and low up-keep cost are engineered into every part. And every part is protected by Midland's famous "Factory Rebuilt Exchange

Plan" that assures you maximum service at lowest cost.

Whether your power brake problem is large or small, it will pay you to see your nearby Midland Distributor—or write us direct for full information on Midland "Load-Engineered" air and vacuum kits.

THE MIDLAND STEEL PRODUCTS CO.

10605 MADISON AVENUE • CLEVELAND, OHIO

EXPORT DEPARTMENT—38 Pour! Street, New York City

Remember these 3 Midland Advantages



Big 7.3 cu. ft. Compressor for DOUBLE AIR CAPACITY



Fully compensating foot control valve for PERFECT CONTROL



Cylinder or
Diaphragms for
SUPER
POWER



DLAND POWER BRAKES



## **NEWSCAST**

(CONTINUED FROM PAGE 56)

#### Dealer Plan for Car Disposal

An appeal to government officials to draft for the use of war workers the million or more used automobiles in dealers' hands before seizing private cars has been made today by the National Automobile Dealers Assoc.

Only the release of an average of oneand-one-third recapped tires for each car would be necessary to make all of the cars now in dealers' hands ready for the road, it is declared. To meet this situation, dealers propose that they gather at their own expense sufficient reclaimed rubber to recap the tires and that government agencies release to them enough crude to lock the reclaimed caps on. It is estimated that only about 130 tons of crude rubber would be required for recapping the needed 1 1/3 million tires.

#### Lowest Size & Weight Limit Formula

An emergency formula establishing lowest maximum standards in size and weight restrictions as a guide to states has been agreed on in cooperation with a number of states and approved by the War Department. They apply to war material shipping. Weights to be permitted which would be the lowest limits prescribed are 40,000 lb. on three axles for semi-trailers and other combinations; 30,000 lb. on two axles; 18,000 lb. on a single axle and 600 lb. per inch of tire width. The formula permits a width of 96 in., a height of 12½ ft. and lengths of 35 ft. for single unit trucks and 45 ft. for combinations.

#### **Wooden Bodies for Army Trucks**

Conservation of approximately 275,000 tons of steel annually—enough to build 30 large cargo ships—is expected from a new Army policy of prescribing wood bodies instead of steel on all cargo body trucks of 1½-ton size and larger. The conversion was explained in detail at a meeting of prime motor vehicle contractors and more than 300 prospective wood body builders. The conversion schedule calls for 50 per

cent by August 1, 1942, and 100 per cent by September 1, 1942.

#### ODT-Truckers to Protest 300-Mile Truck Haul Limit

Joseph B. Eastman, Director of Defense Transportation, and John L. Rogers, chief of the motor transport division, will lead a delegation of trucking interests at a joint ODT-War Department hearing in Washington July 1 in protest against the War Department's proposal to limit truck transportation of goods within an area of 300 miles and less. It will be pointed out that thousands of additional freight cars would be needed to handle such freight now shipped by truck and that shipping delays would result. It was argued that the effect would be to overburden the rails and slow up transportation all around.

#### Size & Weights Hit Snag in Missouri

Missouri has gone on record, through its Governor, F. C. Donnell, that no special legislative session will be called to revise that state's size and weight limits. Present gross weight of 38,000 lb. and axle limit of 16,000 lb. apply in Missouri.

#### Army Takes Over CCC Repair Shops

Forty-five motor repair shops of the Civilian Conservation Corps, located in 37 states, have been turned over to the U. S. Army. The Quartermaster Corps, Services of Supply, will operate the repair shops until such a time when the Army may turn them over to the Corps Areas as district repair shops. Captain Golan B. Harris, Infantry Reserve, who has been Chief Inspector of all the CCC schools, will be Officer in Charge of the organization under the Motor Transport Division of the Quartermaster Corps.

The repair shops will be used to repair motor equipment, and to train soldiers to become auto mechanics. The schools will have a capacity of fifty students each and the training courses will cover a period of three months, providing a capacity of 2,250 graduates four times a year.

#### Devise Simple Water-Proof Test for Insulation Material

A simple test to determine whether or not an insulation is really water repellent has been devised by Harvey B. Lindsay, authority on matters of insulation. This test, according to Mr. Lindsay, can be performed by anyone and needs no special equipment. Just select a few squares of fibrous insulation materials that have or have not been water-proofed. Strip the covering material and float the insulation squares in a wash basin of water. Then, with the palm outstretched bat each piece of insulation under the water six or eight times with sufficient force so that they are completely submerged.

After such treatment, the pieces of insulation not properly water-proofed by the manufacturer will be saturated. If their fibres are spread, the soggy condition of the insulation becomes evident. Insulations that are naturally water-repellent will remain buoyant despite the submersions and will shed drops of water from the surface when removed from the water. Examination of the interior should reveal fluffy, dry fibres capable of rendering original heat-stopping efficiency.

#### Idle Equipment Available

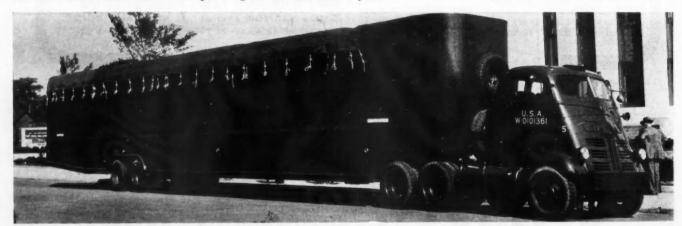
A plan whereby owners of idle shop equipment such as boring bars, grinders, reamers, milling machines and other such precision machinery can be collected and redistributed in essential shops has been organized by Van Norman Machine Tool Co., Springfield, Mass.

Owners of such equipment are urged to advise the company as to type, make, age, model, serial number, motor specifications, and price. Van Norman in turn will publicize this information to its jobbers and thus act as a free clearing center for redistribution of needed equipment.

#### Sid Harris Commissioned by Army

Sid G. Harris, manager, sales engineering dept., Petroleum Solvents Corp., N. Y. C., has been appointed a Captain in the Army. He will be on duty with the Fuels & Lubricants Section, Storage & Issue Branch, Motor Transport Division, Q.M.C., Washington, D. C.

(TURN TO PAGE 132, PLEASE)



Ford Motor Co. will use this huge trailer to ship airframe parts from Willow Run to assembly plants in the southwest. The giant trailer is 63 ft. 6 in. long, 8 ft. 10 in. wide and 12 ft. 6 in. high. Overall length with the tractor is 72 ft. 7 in. The trailer weighs 22,000 lb. and the tractor 9300

Ib. Tractor is powered by two 100 hp. Ford V8 engines. Note four dual wheels on rears of both tractor and trailer. The trailer is designed to hold the complete wing and fuselage sections for B24 consolidated bombers. Two trailers accommodate a bomber airframe, except motors, and replace 7 freight cars



#### Knee-deep in trouble...with pleasure!

IT IS A COMMON SIGHT to see Mack trucks do things that, for most trucks, would be near-miracles. Why does this happen so often? The reason is simple. A Mack is more truck to begin with. We do not build Macks just to stay even with somebody else, but to be beyond all doubt or question the best trucks in the world. And an unequalled record stretching back over forty years says that's exactly what Mack trucks are! Mack Trucks, Inc., Long Island City, N. Y.



BUY U. S. WAR BONDS

#### UTILITY FLEET

(CONTINUED FROM PAGE 37)

on any major repair it is unusual that bearing trouble was the cause. We attribute this result to well filtered oil and maintenance methods as described above.

We find that one of the most important things in getting maximum service out of oil is proper timing. Off-timing will contaminate oil rapidly as it results in improper combustion. In turn, this causes overheating, and a certain per cent of gas goes down past the rings into the crankcase to dilute the oil and reduce its lubricating qualities.

A motor improperly timed will hog gas. Therefore we check timing closely in all our tune-up jobs. We test the oil each time the gas tank is filled, by dipping filter paper in the crankcase oil. This paper is attached to the job ticket which I examine the next morning to determine if a cartridge change is necessary.

This is for my personal observation and is in no way a chemical test. Records show when cartridges were changed and if the paper shows dark and dirty, then I have the oil rechecked and inspect the filter to see if oil is going through.

If the oil is going through the filter and is still dark we change the cartridge. This test and operation takes about thirty minutes. We do not take undue chances. For example, one test at 9000 miles produced a dark brownish stain, indicating oil condition only fair, but nevertheless we changed the cartridge.

Between overhaul jobs oil is added as needed. No two jobs will be alike. We may run from 250 to 1000 miles adding only a quart or more. For example, our gasoline sheet shows a job which used 55 gallons of gas in one month, with no oil added. Another shows 92 gallons of gas consumption in a month when we added four quarts of oil in 1800 miles.

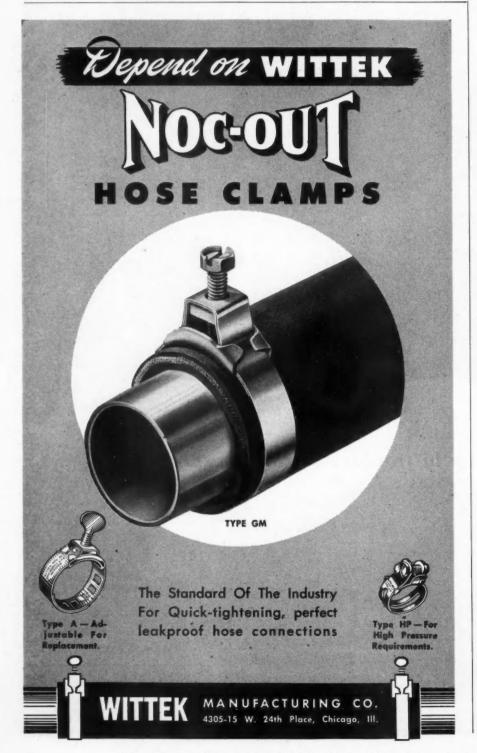
As stated before, oil may get dirty with our filters from 4500 miles and beyond, but overcoming the need for premature cartridge change is done by general check-up and tune-up of motors.

When an engine uses too much oil we check it at once to find the reason—correct the timing—spark plug adjustments—complete motor tune-up. If excess oil consumption continues we tear down the motor and rebuild it.

It is important to point out and clarify the close relationship between good motor performance and engine lubrication. The filter paper test shows this relationship and eliminates promiscuous oil and cartridge changes by men who do not have access to the records or proper knowledge of the dates of change. Proper lubrication with clean oil and good engine performance go hand in hand. If a cartridge change does not keep oil clean it indicates engine trouble. On the other hand if engine trouble is not corrected the lubrication will fail, multiplying these troubles rapidly.

Constant vigilance—knowing exactly what the daily picture is, insures the best engine performance at the lowest possible operating cost. To illustrate, our fleet cannot be kept

(TURN TO PAGE 62, PLEASE)







and a HALF DONE overhaul won't stop Oil Pumping—

Replace Worn Engine Bearings!

The now graver necessity of obtaining longer equipment life and even greater mileage from gas and oil, emphasizes anew the importance of proper maintenance and engine reconditioning.

HALF DONE overhauls that expect a "ring job" to cure oil pumping caused by worn bearings now become costly, wasted effort. When motor-fouling oil waste starts at the bearings, for longer engine life and greatest operating economy, correction must start there, too. Always

check the bearings on every overhaul, and where worn, replace in sets with Federal-Mogul Oil-Control Bearings to restore power, pep and economy for the long run!

The Federal-Mogul Bearing Oil Leak Detector provides a quick, always accurate, scientific checkup method any mechanic can readily use to diagnose internal engine troubles simply by dropping the oil pan. It also provides the ideal check-up after an overhaul is made.

FEDERAL-MOGUL CORPORATION • DETROIT, MICH.



#### FOR VICTORY

Submarine engines, submarine tenders are equipped with Federal-Mogul bearings and other precision parts, as are planes, tanks, guns, trucks, armament-making machinery. Federal-Mogul's expanded factories work "all out" for victory—and continue producing millions of bearings to service the cars carrying war workers and materials to their jobs. We "keep 'em rolling"!



(CONTINUED FROM PAGE 60) in the best possible working order economically on any set rules of a definite time or mileage basis. Suppose that the oil and cartridge look good at any 1000 or 2000-mile point. A policy that would extend the next inspection to a given time or mileage point could cause no end of trouble. Something can happen before another 1000 or 2000 miles, but by our checking the oil at each gas tank filling we catch the trouble, if any.

On the other hand a cartridge

may be on the verge of breaking down, but indicates good performance at the moment. After a cartridge once starts to break down, things can happen fast. If the filter is filled to capacity it is useless to add fresh oil, as contamination will work back into the crankcase unless the cartridge is replaced.

As the purpose of the filter is to take foreign elements out of the oil, we remove the screen from oil pumps to keep sludge and carbon from forming on it and interfering with the passage of oil, especially when the engine is cold. This may shorten cartridge life, but we want this sludge out of the oil.

These findings support our premise that oil deterioration is due to sediment, condensation and acid. Eliminate all of these destructive elements and you have perfect lubrication. The nearest approach to that goal has been attained by the filter and experiments described.

Besides saving large quantities of oil, and this is ammunition now, we also save the labor cost and replacement items necessary for a motor overhaul. Such costs have been cut to one-third of that required before using this new filter equipment.

During the past six months we have made further gains in cutting down waste and lengthening life of parts, especially tires, by a systematic campaign to encourage our drivers to cut down speed. Besides urging them to observe all the driving rules so widely publicized in recent months. To emphasize this factor a recent Indiana speed test proved that nothing worth while is saved driving 60 miles per hour compared to the new speed in the State of 45. Our cost records show that these rules combined with more frequent check-ups have increased our tire mileage on new rubber by 25 per cent.

Our drivers have only verbal instructions about driving habits. It is a gentlemen's agreement. If continuous infractions should ensue it would mean the loss of their jobs.

Lower speeds, combined with rigid daily pressure tests have proved less severe on tire casings and have increased the number of recappable tires 40 per cent in the past six months. Tests require use of a pressure gauge on each tire, each day and inflation to the full recommended pressure for that sized tire at its recommended load.

We have had some carcasses recapped five times. This is rare. Three and four recaps are becoming increasingly possible. We keep on recapping any carcass as long as it is sound. We aim to recap a worn tire midway between the disappearance of the non-skid rubber and before the breaker strip shows through. In other words, get the maximum mileage with safety but before mois-

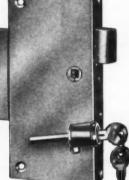
(TURN TO PAGE 64, PLEASE)

#### . . for Greater Safety to Merchandise

# Use HANSEN LOCKS with LOCKING CYLINDER

No. 60-L EXTENSION LOCK (right - hand), with Locking Cylinder and two keys. Made in one piece with inside handle.





HERE'S a Hansen Lock—plus! Hansen dependability plus the added safety of a Locking Cylinder, which is pick-proof,

tamper-proof—against loss or theft of merchandise in transit, stored or left in truck. Equip your truck or fleet bodies with Hansen Locks with Locking Cylinders—for complete protection to deliveries.



Locking devices have been added to many of the standard Hansen Locks, including Locking Cylinders, Locking Handles and special types of Locking Mechanism. It costs little extra to lock-equip your Locks and it's much safer!

Hansen Locks are noted for their rugged strength, simplicity and serviceability. The Hansen Line includes Refrigerator, Slamming, Slam-and-Take-up, Cab, Extension and Sliding Door Locks—also, Regulators, Hinges, Handles, etc.—all built for service!

On your next order for bodies—one or a fleet—be sure to specify HANSEN—the Hardware for Hard Wear!

No. 124 SLAM-and-TAKE-UP LOCK with Locking Cylinder and two keys. Can be supplied with either Flush or "T" Handle.

SEND FOR CATALOG—if you don't already have one. It shows the complete line of Hansen Hardware and One-Hand Tackers.



Used in automotive and airplane industries for various tacking and fastening jobs—insulation, seat covers, airplane construction, etc. For driving Tackpoints up to ½" length. Pewerful. Portable. One-hand operation.

Write for Descriptive Folder

# A. L. HANSEN MFG. CO.

5047 Ravenswood Ave., CHICAGO, ILL.



# Were changing to

as fast as replacements are required"



ENGINEERED AS A BALANCED UNIT OF THE ELECTRICAL SYSTEM Mr. Bigge tells of his experience in operating a fleet of 76 units. "We pull one-third less batteries than we did previous to our using Auto-Lites. That's why we are changing to Auto-Lites as fast as replacements are required."

Two developments give Auto-Lite Batteries better performance and longer life. "Activite," a patented power-producing material, is literally packed with extra power—and Auto-Lite Fibre-Glass, porous mats of glass fibres, prevents "shedding," the major cause of battery failure. Tests made according to S.A.E. standards show double the life as compared with ordinary batteries without these Auto-Lite features. Ask your dealer or write

BATTERY CORPORATION (A Subsidiary of The Electric Auto-Lite Company)
NIAGARA FALLS
NEW YORK



positive plates power - produc-ing materials, growing weaker and weaker un-

And Here's How Sheets of Fibre-Glass Hold "Activ-ite"-etheamazing power - produc-ing material, in the plates, to de-liver full power long after ordi-nary batteries have worn out.



Manufacturing Plants at:
Niagara Falls • Atlanta • Indianapolis Oakland · Oklahoma City · Toronto

IN ITS 26 GREAT MANUFACTURING DIVISIONS, AUTO-LITE IS PRODUCING FOR AMERICA'S ARMED FORCES ON LAND, SEA AND IN THE AIR

(CONTINUED FROM PAGE 62) ture can seep through and weaken the carcass.

For example, it is commonplace now to get 100,000 miles, including two or three recaps per tire on the heavier trucks. The average mileage on the original tread on these large truck tires is 46,000 miles each. Recaps run about 80 per cent of new tire mileage.

On the lighter one-half and 1½-ton jobs, we used to average only 18,000 miles, but raised this to 40,000

miles per tire by reducing the speed, through checking pressure daily and changing what we called undersized tires to oversized tires.

For example, trucks with 6.00 x 16's were changed to 6.50 x 16's using same rims. Our 6.50 x 20's were jumped to 7.00 x 20. The 7.50 x 20s' boosted to 8.25 x 20, all using the original rim equipment. Some of the others, 6.00 x 16's changed to 7.50 x 15, had to have over-sized rims. This change-over of tire sizes more than doubled tire mileage;

boosted average tire life from 18,000 to 40,000 miles.

Obviously, the purpose of this charge was to get longer mileage and conserve rubber. Using undersized tires on regular equipment is equal to over-loading and breaks down side walls. If more pressure is carried than ordinarily recommended for this size, premature failure will result.

Getting back to recaps, economy is proved by the fact that our largest tires cost up 1.7 to 2 mills per mile, while recaps are costing us one mill per mile per tire.

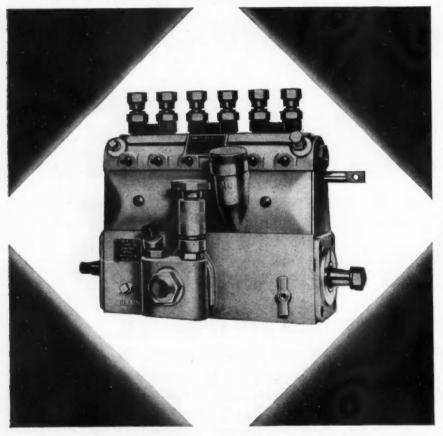
We impress on our drivers the need for reducing wear on tires, brakes and all working parts by exercising extra precaution on starts and stops, discourage idling, instruct them to shut off motors on brief stops, and avoid racing a cold engine in order to get under way quickly in low gear. Time is important, but saving vital and irreplaceable parts is even more important now. Out-of-town drivers are told that injuries resulting from over-inflation are about as bad as under-inflation. To conserve motors, clean oil must reach working parts. A cold engine is easily killed and requires more gasoline to pull the load than on normal highway driving.

Our heated garage makes for easy starting in cold weather-a worth while investment to conserve costly and perhaps irreplaceable parts. It also insures plenty of oil getting to bearings and tops of cylinders the instant motors start. A careful check of our records covering four years of intensive maintenance shows that trucks used on short trips and making frequent starts and stops require the most attention. As most of our trucks operate in a radius of twenty miles of Fort Wayne with occasional jobs 100 miles distant, we strive always for the highest efficiency in lubrication, with special emphasis on

First, all repairing and major check-ups are done at our Fort Wayne shop. Minor services on trucks located permanently in nearby towns are done outside, authorized by the supervisors in the territory who relay the reports to me. Drivers away from home make a written report every 1000 miles on the condition of motor, brakes, tires and oil.

(TURN TO PAGE 67, PLEASE)





## AMERICAN BOSCH DIESEL INJECTION EQUIPMENT

AMERICAN BOSCH CORPORATION SPRINGFIELD, MASS.
BRANCHES, NEW YORK, CLEVELAND,
DETROIT, CHICAGO, SAN FRANCISCO

(CONTINUED FROM PAGE 64)

They are instructed, however, to drive their trucks to Fort Wayne for complete check-ups every 3000 to 5000 miles. These check-ups include motor tune-up, inspection of wheel bearings, steering system, brakes, lights and an all-over tightening of the chassis. Drivers must come in regardless of time or mileage if their reports show dirty oil.

If oil pressure is low we insert camshaft bearing metering jets in the oil line of some types of motors on older equipment. This has helped to reduce oil consumption and increase life of bearings on old motors. We have found the jets especially economical in old engines where oil has a tendency to escape or circulate back to the crankcase before reaching the main bearing.

We use several designs of steel bodies for our construction line trucks in 34-ton to 2-ton units. These bodies are a big part of our maintenance cost. One recent improvement was to make them interchangable on all one-ton units, eliminating the cost of making a new body when the old truck is traded in, or when another type of body for a one-ton job is needed for extensive highway

Light weight bodies for bulky items enable us to use all steel channel and angle iron for frame work. But we sometimes use heavier angle iron than necessary if and when we have it on hand as a salvaged item.

Our truck body frames are built up on the chassis, angles and channels spaced proper distance for panels, bins and tool compartments. Sides, ends, bottom and top cross members and door frames are cut to length by acetylene and then electrically welded, making a rigid skeleton frame. Lastly, the sheet metal panels are riveted on the frame. using 1/8 in. soft rivets. In case of injury to any part of the body or need for changing panels, we can knock rivets out with a hammer and rebuild. This construction is economical and affords a neat appearance. We use scrap metal in this body work wherever and whenever it is available.

Our welding equipment is perhaps the most valuable in our shop. Nearly every day we find new uses for welding. In some places it saves money. In others we use it as the last resort to build up or repair some kind of equipment or part that cannot be bought on the market.

For example, we are now forced to build up our worn brake pins to the required size with arc welding material, then case-harden and machining them for use. We weld broken drive shafts, axles, transmission housings, frames, bumpers, hubs, etc. Certain stock bearings on hand, bought for other uses, may not fit equipment where needed. We build them up with bronze and remachine them to fit. This is also a welding process. These are only a few examples of the increased uses of welding equipment.

It is not easy to make bolts in a shop like ours. Neither is there any profit in it. But when we could not get new ones in the sizes needed, there was only one thing to do—make them. Our blacksmith made a dozen special dies for 3/4-in. square-headed bolts. He used rod steel,

(TURN TO PAGE 68, PLEASE)





# ARROW

#### SEALED BEAMS

Modern lighting with ARROW Sealed Beam Head Lamps cuts down the strain of night driving. Fast schedules can be maintained with greater safety. They cut down lamp maintenance costs, too. Light unit and reflector are sealed in glass. Dust and dirt can't get inside to dull the reflector surface and reduce lighting efficiency. You don't have the continued polishing, cleaning and renickeling jobs that were forever coming up on the old type head lamp.

There is a style of ARROW Sealed Head Lamp or Conversion Unit Kit to fit practically every type of truck or bus. Like all ARROW products, they are especially engineered and built to give long, dependable service. And like all ARROW products, the price is right, too! See your jobber or write direct to Department 134.

ARROW PRODUCTS HELP KEEP OUR ARMED FORCES ROLLING.

ARROW SAFETY DEVICE CO., Inc.

(CONTINUED FROM PAGE 67) salvaged from fasteners used to ship heavy reels of wire on flat cars. This material was formerly junked. Now it is almost priceless. He makes a dozen or so at a time, heating the material in the forge, forcing it into the dies with a steam hammer, then tempering and threading them at a cost nominally higher than the former price of new ones.

We have just begun to weld broken spring leaves and bumpers, body injuries and fenders.

company introduced a plan four years ago to develop the highest type of maintenance shop possible. Simultaneously the condition of our fleet was improved by replacing many older trucks with new ones. The plan was to keep a small truck three years, larger one-ton trucks five years, or 50,000 miles, respectively. The small 1/2-ton trucks consumed the extra mileage in about that proportion. It was planned to use the higher units eight years before a trade-in, all of which enabled us to sell or trade to the best advantage.

The first equipment installed in the shop four years ago was a modern hoist, greasing equipment, work benches for workmen, a place for everything and means for putting everything in its place. Every type of labor-saving machine, electrical and motor-testing equipment to facilitate service was installed. Also a wheel balancer, lathes, honing and boring equipment to refit bearings and shackle bolts, wheel pullers, special wrenches, dies and drills.

END (Please resume your reading on P. 38)

#### **QUIZ ANSWERS**

(Questions on page 26)

- 1. d. The signal to start engines is a cranking motion. It doesn't take much imagination to discover how this originated.
- 2. a. It applies to the amounts of space between trucks on the road, depending on the varying speeds of the individual trucks.
- 3. c. 76 hours is necessary for the Army's standard schedule of instruction. This includes conferences, demonstrations, and practical periods, and ends with a qualification examination.
- 4. c. The Army prescribes that under favorable operating conditions the minimum safe driving distance, in yards, is approximately twice the speedometer reading. In other words, a truck at 40 mph should follow its leader by at least 80
- 5. b. Close column. In this method of movement, the trucks maintain minimum safe driving distances from the vehicles ahead.
  - 6. a. Each truck has its own driver.
- 7. c. These are trucks with four wheels, two of which are driven. They are best adapted for use on highways and roads of fairly good condition.
- 8. b. Diesel engines are usually more reliable in cold weather, the Army has found out. At minus 30 deg. F., diezel oil becomes too sluggish to flow through pipes. An improvised wood stove made of sheet metal and built against the fuel tank is sometimes useful in warming the oil when starting.
- 9. a. Most common cause of excessive tire wear is improper inflation, including both under and overinflation.

10 a-3; b-4; c-2; d-1. Applying brakes slightly keeps a certain amount of water from getting on brake linings. Underinflation gives added flotation or buoyancy on sand. On muddy roads, the paths of the preceding vehicles are hardest packed, but on swampy ground it's best for each truck to make its own track. The grassy crust may carry one vehicle but may not support another in the same track.

END (Please resume your reading on P. 28)



THE EASTERN MALLEABLE IRON CO. . CLEVELAND,



STOP SCRATCHING, BOY...

STOP SCRATCHING, BOY...

to use for better results.

here are the rings to use for better results.

BETTER results? You'll get them with Sealed Power Individually Engineered Ring Sets. These matchless piston rings are truly engineered—by the same specialists who create the rings used in leading cars and trucks, as well as in airplanes and tanks. They're tailor-made for each make and model of car and truck. They fit better, work better, satisfy you more. You just can't buy better piston rings.

SEALED POWER CORPORATION

MUSKEGON, MICHIGAN
In Canada: Windsor, Ontario



FOR ALL POPULAR MAKES
OF CARS AND TRUCKS



#### SERVICE TIPS FOR ALL TYPES OF SERVICE

(CONTINUED FROM PAGE 35)

to meet the requirements of the operation, which could have been built into that truck at the factory, have been overlooked. As a result, clutch facings soon go out, brake drums become scored due to premature lining wear, and fuel consumption becomes excessive. Such failures can be charged to faulty selection of equipment.

In the main, it can be said that failures and faulty performance of motor trucks are due primarily to faulty selection, use, and servicing of equipment.

Most equipment failures due to faulty selection can be corrected quite easily. For example, standard production trucks are assembled at the factory equipped with chassis springs designed to carry certain specified loads. It sometimes happens that trucks are not loaded to their full carrying capacities and, with stiff springs, hard riding results. Riding qualities can be greatly improved under such circumstances if shock absorbers are installed or lowrate springs are substituted. At the same time truck life is prolonged due to elimination of vibration and shock.

Carburetors are calibrated at the factory to give maximum truck performance and power output. On many operations, especially where loads are light and driving conditions will permit, it is advantageous to install an adjustable main jet in the carburetor. When properly adjusted this main jet limits fuel consumption to that actually necessary to meet the individual operating requirements. The output of the accelerator pump can also be limited to supply only a sufficient amount of fuel for normal acceleration. Rapid acceleration is not consistent with conservative and economical driving. Periodic inspections should be made to maintain correct level of the carburetor float, as the float is a controlling factor in the amount of fuel passing through the fixed jets. Fuel pump pressures also must be kept in accordance with the manufacturer's specifications to assure proper functioning of the carburetor.

An engine's performance is dependent also upon the efficiency of its spark plugs. If the engine is to operate on the minimum amount of fuel and run smoothly the plugs must be of the correct heat range with electrodes properly gapped. The plugs should be regularly checked for cleanliness and adjustment to prevent oxidation accumulation. Due to recent changes in the octane ratings of gasoline it will be necessary to replace many of the spark plugs now in use to those having proper heat range. If ratings continue to be lowered, additional replacements will be necessary.

In operations requiring high engine speeds it has been found that, even in cold weather, low-viscosity oil does not always prove satisfactory, because its consistency readily permits it to be churned into a spray by the crankshaft with resultant lack of oil to other vital parts. However, with the idling and slow speeds of the engine in stop-start service, there is slight possibility of insufficient lubrication when light oil is used, and there is a decided advantage in that there is less loss of horsepower due to friction of moving parts.

For bakery, dairy, and other multi-stop operations, special brake linings have been designed and are available for installation. Trucks in such service seldom attain speeds sufficiently great to require the use of high-friction linings for rapid deceleration when brakes are applied. Longer life is obtained from linings having a lower coefficient of friction, and these have been found to be entirely satisfactory for lightload and moderate-speed operations. However, the life of brake linings is also dependent upon proper brake adjustment. Brake adjusting should always be done with extreme care by a mechanic fully qualified to do the Proper adjustment insures quick and complete brake release,

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The original of this daily report form measures 4 z 6 in. and is to be used by the drivers

thereby eliminating any drag that would cause both rapid lining wear and greater fuel consumption.

All stop-and-start truck operations result in greater-than-average wear to clutch linings because of more numerous clutch applications. Clutch life can be considerably lengthened by installation of heavy-duty linings now available to the user.

Careful selection of tire size is essential in obtaining maximum fuel economy. Tire size should be in accordance with imposed loads. The wider treads of oversize tires result in increased friction between tires and road which is, in reality, a drag that must be overcome by additional power from the engine.

Tires should be carefully checked to keep them at their fully inflated pressures, not only to prevent tire deterioration but also to prevent more tire surface than necessary from contacting the road. The latter has the same effect as oversize tires, since a drag results from the added friction. Instead of depending entirely upon a tire pressure gauge to determine proper tire inflation, it is good practice to use a gauge to determine if tire bulge (deflection plus growth) is in keeping with the tire manufac-

(TURN TO PAGE 72 PLEASE)



## ... PROVING THEIR DEPENDABILITY ON Every FRONT

THE EMERGENCY demands placed on all forms of motor truck transportation—civilian and military—by war's necessities find America's harder-working, fast-moving motor transport fleets shouldering new burdens to speed the weapons of victory.

To this end, hundreds of Federal Truck Fleets are now dedicated by their owners to winning the war. And in their use of Federal Trucks, these owners are learning, as they never learned before, the singular advantages of long-lived dependability and rugged operating efficiency built into the trucks of their choice for the crucial tasks ahead.

Federal Trucks have always been noted for their

huskier, heavier construction and special, job-tailored fitness. They are built to balanced specifications where engines, clutches, transmissions, axles, chassis frames and springs are matched and coordinated properly—one with the other—to insure 100%, ALL-TRUCK performance.

So today, when men and machines are facing the most critical period in all our history, Federal adherence to bred-in-the-bone quality is proving its worth over and over again in the Armed Forces of the Army and Navy, in America's Service of Supply, in speeding Industry's single-purpose war efforts.

FEDERAL MOTOR TRUCK CO., DETROIT, MICHIGAN



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(CONTINUED FROM PAGE 70) turers' standards. Such information is listed in various tire manuals and can be obtained for the different size tires from any reputable tire dealer.

If tire treads are to wear uniformly, particular attention should be given to wheel alignment. Drivers of delivery trucks too frequently, although not intentionally, strike the curb with the front wheels. Such practice causes wheel misalignment, resulting in scuffing and excessive wear of tires.

#### **Preventive Maintenance**

Present-day conditions, with rationing of trucks, tires, and other allied equipment a reality, emphasize the necessity of properly maintaining equipment now in service.

Every fleet operator is aware of the necessity of adopting a strict program of preventive maintenance.

Preventive Maintenance begins with the truck driver. Therefore it is essential that owners employ only experienced and competent drivers who will accept and carry out instructions. Every driver should be impressed with the fact that today his responsibilities are greater than ever before. Added emphasis should be placed on:

1. Safe and courteous driving. Taking unnecessary chances should be avoided, as accidents and delays are costly. In addition to loss of life or personal injury that might be involved, accidents often result in the burning or destruction of tires and other vital materials that are hard to replace although fully covered by insurance.

2. Careful starting and stopping. Both rapid acceleration and deceleration should be avoided because such practice results in excessive fuel consumption, rapid wear of clutch lining, slippage of tires, and greater wear on brake linings and drums.

3. Careful driving. Careful driving will prevent premature wear of all component parts of the truck, most of which consist of materials vital to the war effort.

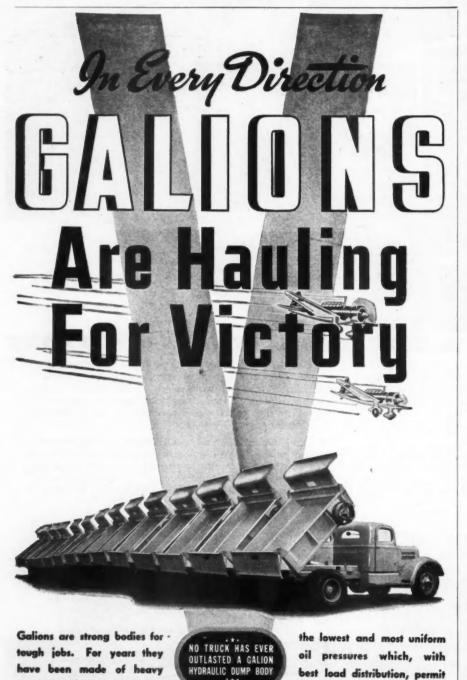
4. Nervous driving. All drivers should cure themselves of "nervous" driving habits. One of the worst, most annoying, and costly of these habits is the practice, often an unconscious one, of "patting," "playing," or "pumping" the accelerator pedal while the vehicle is standing still at a traffic light or while parked with the engine running.

Recently our truck engineers made tests of how much fuel is consumed by impatiently "patting" the accelerator pedal while the vehicle is standing still. These tests were made on a typical 1½-ton truck (233-cubic-inch-displacement engine) of a type commonly employed in city delivery and hauling service.

Tests were made on the basis of a city driving condition where a total of 150 traffic stops are made each day. These tests proved that by "patting" the accelerator once at each of the 150 stops the driver would burn an additional ½ pint of fuel a day or, in a 312-day working year, he would actually waste 19½ gal. of gasoline.

5. The Driver's Daily Report. No one is more familiar with the performance of a truck than the individual who drives it. If he makes a regular report to those responsible

(TURN TO PAGE 74, PLEASE)



guage steel fabricated into

the best design for maximum

strength. Galion hoists offer



American Brakeblok "Regular" Brake Lining for manually operated braking systems.



American Brakeblok "1000 Series" Brake Lining for vacuum-booster braking systems.



American Brakeblok "2000 Series" and Thick Blocks for airbrake equipment.

WITH three general types of heavy-duty brake linings, and a world of practical truck experience to guide them, American Brakeblok engineers offer you a wheel-by-wheel study of your particular brake maintenance and performance problems. Simply ask your American Brakeblok representative to fill in an Advisory Service form, or write us. This Advisory Service is producing helpful results for operators in all types of work, in all parts of the country. Ask about it today.



"Watch for me, Stopper the pup, broadcasting American Brakeblok's safe-brake messages in your national magazines."

> Master stocks in 38 NAPA Warehouses. Jobbers everywhere give prompt service.

American Brakeblok Division of The American Brake Shoe & Foundry Company, Detroit, Mich.

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ner (CONTINUED FROM PAGE 72) concerning the mechanical condition of the unit he drives, many minor faults can be corrected before becoming serious. Therefore, at the end of each day or shift the driver should fill in a report on the vehicle and turn it over to the shop foreman. Such a form need require only a check mark by the driver to indicate any part needing attention, but it should also provide space for checking by the mechanic after he has made the necessary adjustments or

repairs, which, of course, should be made immediately.

In addition to the form on which the driver makes his daily report at least three more forms are necessary to carry on properly the Preventive Maintenance program. These forms (illustrated) are for use during truck inspections at 1000 miles, 5000 miles, and 10,000 miles respectively. The 1000-mile chart should be used at each 1000-mile interval excepting, of course, the 5000 and 10,000-mile intervals, at which time the charts so

designated should be used. On some of the low-mileage operations, such as door-to-door delivery, trucks do not always travel 1000 miles in thirty days' time. In this event they should be given the same inspection and care as outlined on the 1000-mile form.

Each time an inspection is made all units showing need of repair should be placed in first-class condition and should be kept in such condition by constant attention and care.

The necessity of frequent lubrication (at intervals not to exceed 1000 miles) must be emphasized. Trucks operating on or off the highway accumulate grit and foreign matter in moving parts that will cause rapid wear unless forced out under pressure by the addition of fresh lubricant. It is important that the proper type of lubricant be used in accordance with the manufacturers' recommendations.

Such a program as outlined is designed to cover the requirements of normal usage; any abnormal use of equipment obviously necessitates greater vigilance on the part of the owner. The Driver's Daily Report and Preventive Maintenance forms are offered as samples from which the fleet owner can make up what he believes to be the correct forms for his particular operation.

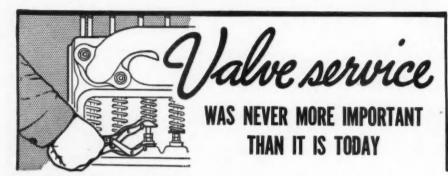
#### **Extended Maintenance**

After a truck has been driven numerous miles, performance records should indicate units of the vehicle that are possibly in need of major repair. The only way to determine definitely the true condition of the units is to disassemble them for complete examination. Such examination and repair is referred to as "extended maintenance." In this category can be placed the inspection and reconditioning of valves, pistons, pins, rings and bearings, gears, brake linings, drums, etc.

(Please resume your reading on P. 36)

#### Goodyear Starts Synthetic Plant

The new synthetic rubber plant of the Gooyear Tire & Rubber Co. in Akron has begun production and it is predicted that its annual capacity of 15.000 tons will be in swing within a short time. Production at this and another plant of similar capacity previously in operation is confined exclusively to Army and Navy requirements.









★ You'll be doing your customers a real service if you sell them complete valve service jobs regularly. It will prolong the life of their motors and at the same time help in the conservation of gas and oil. You know this . . . tell your customers!

#### K-D 380

A sturdy, versatile Compressor to handle valve-in-head and most L-head motors on the road today. Exclusive, automatic depth adjustment (by means of geared hand wheel) and quick operating handle make it fast and easy to operate. Two sets of jaws, as shown. Opening 10" x 101/4".

#### K-D 900

Designed for low cover-plate openings and lowhung manifolds, the 900 is right for motors serviced under the fender. Only 8¾" long. Exclusive auxiliary jaws swing into position, as shown, for extra high lift when required. Total 3" parallel lift. Tempered jaws adjustable.

#### K-D 920

This set pulls guide assemblies from Ford motors no matter how tightly they're stuck. (Ford 85 H. P., Mercury, Lincoln-Zephyr, Tractor, Ford 4 and Ford 6). Driver (lower) removes guide retainers and Puller (upper) pulls assemblies up and out without fuss or delay. Drop forged Puller is really strong. Don't waste hours on this tough job . . . get a K-D 920 Set.

See, price and buy K-D TOOLS at your jobber's. Write for new Catalog. "Care for your car... for your country."



K-D TOOLS..."THE HUSTLERS FOR YOUR TOOLBOX"

K-D MFG. CO. Lancaster, Pa. Hamilton, Ont.

# Tool up free WHILE YOU CAN!

Good rings are needed on the job—but good tools are needed, too. Hastings offers these and other special tools to help you do better, more accurate service work.



d

NEW HASTINGS AIR-PEEN HAMMER—Compact, light, fast and easy to use. The most accurate peening device known as it permits each piston to be peened right in its own cylinder. Operates from air compressor. Exclusive with Hastings.



SAFE-T-BLADE RIDGE REAMER—
Removes the ridge above the ring travel in worn cylinders preventing serious damage to the top ring. Cutter automatically follows the ridge regardless of shape of bore—and removes the ridge completely and safely.



BEARING OIL LEAK DETECTOR—An ingeniously simple tool for discovering and demonstrating the need for bearing replacement. Pump driven. Duplicates oiling action of motor.



SPEED-KING VALV-TOOL—Removes Ford V-8, Mercury and Lincoln Zephyr valve assemblies without distortion, breakage or sticking. It lets you remove the complete set with ease—in 15 minutes or less.



# GET THESE SERVICE TOOLS NOW WITH HASTINGS STEEL-VENT SETS!

Good tools are hard to get today—and it's going to become even more difficult to buy them. Fortunately, however, the famous Hastings Service Tool Plans make it possible for the time being for you to get the tools you need for better, faster, more profitable piston ring work.

See your jobber salesman today about the Hastings Service Tool Plans and the rings that are "Tough But Oh So Gentle."

HASTINGS MANUFACTURING COMPANY, HASTINGS, MICHIGAN

Hastings Mfg. of Canada, Ltd., Toronto
Piston Rings • Piston Expanders • Valv-Rings

# HASTINGS

STEEL-VENT PISTON RINGS

Stop Oil-Pumping · Check Cylinder Wear

#### WASHINGTON RUNAROUND

(CONTINUED FROM PAGE 27)

unparalleled patriotic fervor among truck operators.

Nowhere in the plan is there any compulsion. Every truck operator is being asked to join the "U. S. Conservation Corps" voluntarily. Every operator is being asked—not compelled—to sign a pledge that he will

maintain his trucks along ODT-recommended lines. For this pledge he will receive a decalcomania for each of his trucks which will tell the world that the owner is pledged in the U. S. Conservation Corps.

Fulfilment of his pledge is up to the owner. This in itself means that display of the decalcomania pledge will not be proof that the vehicle is maintained as recommended by ODT. There is even some doubt that enough decalcomanias will be available to go around. The Government is not supplying them. ODT hopes that manufacturers of trucks and parts and supplies will buy the decals and furnish them to their outlets which thenceforth will be known as "Official Stations." In other words, as we understand it, any manufacturer can designate any of its outlets, regardless of their ability to do an adequate job of truck maintenance, as "Official Stations."

The lack of compulsion is commendable but the other factors combined are considered drawbacks which only patriotism of a super sort is expected to overcome.

#### Truck Applicants Surrender

From March 9 until May 30 the Local Allocation Offices of ODT received approximately 80,000 applications for new commercial vehicles. Less than half this number were disapproved by the local allocation officers. But what amazes the Allocation Section of ODT is that only about 20 per cent of the disapproved applications were appealed. In other words, 80 per cent of the disapprovals were allowed to stand without a fight.

#### **Army Bombs Ration Idea**

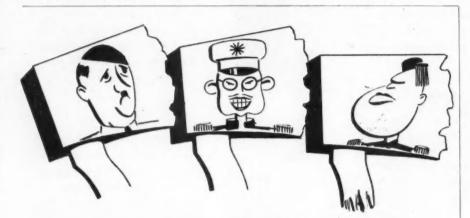
The move to persuade the army and navy to order on their high and unrestricted priority the building of a new truck to replace every truck taken out of the ration pool with government-exempt permits, turned into an "out" at first base. The army voiced a positive no, saying that it would not consider ordering commercial-type vehicles from manufacturers and using up the precious supply of tires. In short, vehicles ordered on the army priority will be military vehicles only.

#### **Barriers Continued**

State Governors have given the Federal Government their promise that barriers to interstate commerce—including highway transportation—will be lifted to promote the victory effort. There is evidence that some states don't have the same idea of barrier lifting as the Federal Government. Look for a showdown and a Federal crackdown if the spirit of the Governors' promise is violated.

END

(Please resume your reading on p. 28)



# NOW THAT WE HAVE OUR AXIS TO GRIND

Like all the rest of America we here at Edwards are facing our biggest job confidently. We are really going to pour it on Adolph and Hirohito and Benito to the best of our ability.

And that isn't just a promise. Edwards is turning out a number of things, other than trailers, that our Uncle Sam needs. Everything in our plant from manpower to machinery is dedicated to the proposition of doing the finest and fastest job we can at whatever we can do to help.

Nor have we forgotten that it also takes money to win a war. Edwards executives and employees are participating 100% in the purchase of U.S. War Bonds and Stamps. Are you?

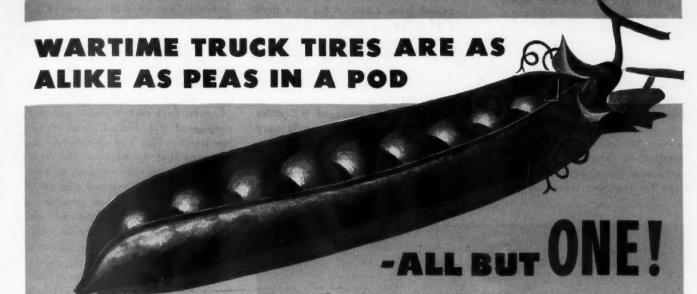


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### **EDWARDS TRAILERS**

EDWARDS IRON WORKS, INC.

SOUTH BEND, INDIANA



#### Through its proved Heat-Venting principle, The Wartime SEIBERLING TRUCK TIRE protects against internal heat—and SAVES RUBBER FOR VICTORY

Because America's stockpile of rubber must outlast the Japs, the government has standardized specifications for all tire manufacturers. That makes all wartime truck tires pretty much alike-all but the Seiberling Heat-Vented Truck Tire. To conserve precious rubber, this wartime tire retains its famous Seiberling Heat-Vents. They expel dangerous internal beat-the cause of more tire failures than all other factors combined.

And because all wartime truck tires contain less crude rubber and more reclaim-are less resistant to heat-than those made before Pearl Harbor, the cooling effect of Seiberling Heat-Vents is more important than ever. Use your next ration certificate for the only wartime truck tire that helps conserve rubber by expelling dangerous internal heat.

#### YOUR TIRES ARE FIGHTING FOR AMERICA... MAKE THEM LAST!

The truck you use is a vital weapon in winning the war. Without it, and the thousands of other trucks, the all-important job of feeding and arming America would come to a standstill. Keep it rolling toward Victory by doing everything in your power to make your tires last longer.

- 1. Drive only when necessary; conserve vehicle and tires.
- Drive under 40 miles an hour; speed burns up rubber.
   Check tires for proper inflation once a week; low pressure may ruin tires and tubes.
- Have your wheels, brakes, tires and tubes examined regularly by a reputable tire service man; his expert recommendations can give you many extra miles.

# SEIBERLING

Save Rubber For ICTORY Heat-Vented TRUCK TIRES

MAKE YOUR TIRES OUTLAST THE JAPS ...

Ask Your Seiberling Distributor about PROTECTIRE SERVICE!

#### **IDLING GUZZLES GAS**

(CONTINUED FROM PAGE 30)

lecting one vehicle from each of five branches representing five different operating conditions. Records were kept for six months of operation with drivers allowing their engines to run. Our shut off switch was then installed in these five vehicles and gas consumption figures were tabulated for the next six months. Results showed that miles-per-gallon increased from a low of 6.1 to a high of 10 miles per gallon. Similar increases were registered for each of the test trucks. In one branch records showed that a new truck averaged only 5.3 miles per gallon of gas during the month of May and that the same truck averaged 9.3 miles per gallon in the month of January after a shut-off switch had been installed. Complete figures on these tests are shown in the chart on page 28.

Although not yet complete, tests indicate that by cutting out idling we can expect at least a 25 per cent increase in gasoline economy with a strong possibility that this figure may go as high as 40 per cent.

Further tests with shut-off devices on 28 trucks during two trial periods of seven days each revealed gasoline savings of 291 and 323 gallons, respectively. This was enough to convince us that we were on the right track and now all our door-to-door trucks are being equipped with shut-off devices as rapidly as possible.

Besides saving gasoline we are convinced that we will realize additional savings through lower maintenance costs. We definitely expect to experience less engine wear and fewer electrical failures as a result of our new practice. One immediate benefit has been the complete stoppage of battery failures and so far recharging has been unnecessary on those vehicles used for test purposes. As a matter of fact, one vehicle used for the test previously had to have its battery recharged every three days. That truck has not had its battery recharged since the shut-off switch was installed.

Careful records are now being kept on maintenance costs for these vehicles and when these records are complete, we hope to have proof of better truck performance and lower maintenance costs.

Besides this shut-off device, we are taking other means to educate drivers to save on gas, tires and equipment. Bulletins are posted at each garage reminding mechanics and drivers that we are at war; that we can't get tires; that gasoline allowances have been cut and that drivers' jobs will last only so long as we can keep our equipment rolling. Drivers are warned against speeding, particularly against running until the governor cuts in. They are also warned against excessive choking, sudden stops, fast acceleration, etc. They are urged to reduce the number of stops and starts whenever possible. Through such cooperation we hope to achieve considerable savings in equipment and operating costs as well as make a helpful contribution to our war effort.



END
(Please resume your reading on P. 31)



# \*SAVE TIME ON "WAR TIME"

Moving the clocks ahead meant more than saving an hour of daylight. It was the signal for stapping up America's tempo all along the line. Grey-Rock's 3-Point Plan gives you extra hours around the clock. It is a tested procedure for inspecting, adjusting, and relining brakes with speed and precision. It conserves material, money, and time. It cuts out waste motion. Grey-Rock Balanced Brake Blocks give greater mileage between re-lines. They mean faster schedules with safe, smooth stops. Ask your jobber how Grey-Rock's 3-Point Plan saves time on war time. UNITED STATES ASBESTOS DIVISION of Raybestos-Manhattan, Inc., MANHEIM, PA



#### ICKES SALUTES TRUCKS

(CONTINUED FROM PAGE 39)

tions by the Petroleum Coordinator; it will be because of the decision that rubber must be conserved. If such an order comes, I know that it will be as cheerfully obeyed by those of you in the motor transportation business as by citizens generally. And even pending that day, as good and patriotic citizens, you will doubtless save all of the gasoline, and there-

fore, all of the rubber that you can. I suspect that there are many economies—small as individual ones but mighty in the mass—that you can effect for the common good.

But, returning to my own jurisdiction, there are facts about oil which I can properly discuss, and which I believe will be of interest. I have in mind, particularly, the revolution that has taken place in oil transportation—a revolution which has shaken the oil industry to its very roots, and yet at the same time a

revolution which has been carried out so smoothly and successfully that the public has hardly been aware of it.

Let us look at this revolution, beginning just a year back, in the socalled "normal" days, before the Paranoiac Paperhanger and his Japanese Jumping-jacks decided that we were ripe for picking.

At that time, the Middle West was virtually self-sufficient so far as oil was concerned. You had your wells and your refineries, and you had a great network of pipelines to move the oil to market centers. Tank cars and tank trucks handled the local distribution. The Rocky Mountain region and the Pacific coast were likewise self-sufficient in the matter of petroleum.

Only two areas were otherwise situated, and they were the seventeen states of the Atlantic seaboard, and the six states which the Office of Petroleum Coordinator designates as its District 3; Louisiana, Mississippi, Alabama, Arkansas, Texas and New Mexico.

The Eastern states that have been named, ordinarily use nearly 40 per cent of all the oil produced in the entire country. Yet they produce only 2 per cent of the total. In sharp contrast, the six states of the Gulf and Southwest consume only 14 per cent of the national total, while producing 50 per cent of it. Thus, we had two fundamentally interdependent regions: one of them supplying many times as much as it can use, and the other using many times more than it produces.

In peace time, the balance was maintained perfectly—maintained by tank ships which hauled an average of 1,400,000 barrels very day to East coast ports from Gulf Coast, California and Caribbean ports—95 per cent of all the oil used on the seaboard. And then came Hitler—and the oil revolution.

I do not need to tell again the story of how those tank ships were transferred in large numbers to war duty, and how others of those ships have been sunk or damaged. But, apparently there are still those who do not fully realize that this sudden and violent dislocation in normal transportation resulted in a sudden and violent dislocation of supplies in the East. No longer were we able to ship

(TURN TO PAGE 82, PLEASE)





MT. EVEREST



As the giant peaks tower above the surface of the earth, so Gemmer Triple Roller Tooth Steering Gears tower above other devices in all of the essential factors for desirable steering control; indisputably the pinnacle in steering.

"Passenger car ease"—maximum safety in steering—are provided for commercial vehicles of all kinds—including buses, trucks, tractors, road machinery.

Gemmer Triple Roller Tooth Steering Gears embody these all important factors for desirable steering:

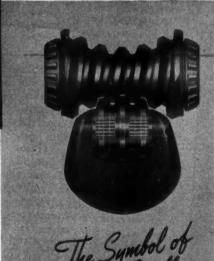
Efficiency—highest available—provides easy steering always—plenty of power for parking.

Stability—Steering is firm, response positive, with absence of rubbery feeling and wander.

Safety—abundant safety factor—low internal stresses.

Durability-endurance for the life of the vehicle.

Convenience—compact design for easy installation and weight saving—yet steering arm angularity is ample.



The Symbol of Steering Excellence

#### GEMMER MANUFACTURING CO.

6400 MT. ELLIOTT AVE. . DETROIT, MICH.

(CONTINUED FROM PAGE 80)

in enough oil to meet current demand. That meant that it was necessary for the oil companies to draw heavily upon their reserve stocks, and that those stocks went down, contin-

ually and alarmingly.

But, meanwhile, the transportation revolution had begun: tank cars began to appear upon the eastern railroad tracks. One year ago, there were practically no tank cars hauling oil into the East, because this method was too expensive. It cost, at that time, about twelve times as much to ship a barrel of gasoline from Texas by rail as it did by tanker.

However, when the United States was called upon in the spring and summer of 1941 to lend some of its tankers to Britain, the Petroleum Coordinator asked the oil companies to press tank cars into service to make up the transportation deficiency. They did so. By October, they had built tank car shipments from practically nothing up to more than 140,000 barrels per day. We thought that this

was an achievement, but, as subsequent developments have shown, it was merely a taster—a sort of hors d'oeuvre. We continued to press on from good result to good result. By the first week in February, tank car shipments to the East had passed the mark of 200,000 barrels daily. By March they had hurdled 400,000 and by the mid-May the 700,000-barrel mark had been left behind.

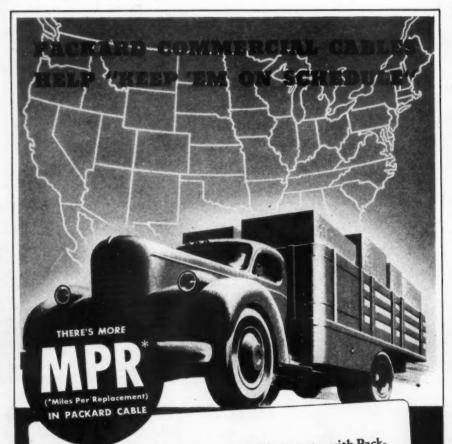
The oil companies achieved their great rail movement despite the fact that it involved millions of dollars in added transportation costs - costs which have only partly been made up by authorizations for compensatory price increases. The oil companies, the railroads, and the truck operators have entirely revamped, within a single year, an oil transportation system that required a quarter of a century to develop. That, I submit, is a transportation revolution. Without it the Eastern states long ago would have been in the grip of an oil famine so grave that there would have been no oil whatever for ordinary civilian use: even our war industries would have been operating on reduced schedules.

Of course, as everyone knows, and as I have already said, even this remarkable accomplishment still leaves the East without sufficient oil for normal requirements. It also leaves me unable to answer the question on oil which means so much to the average American: "How much will I get?"

As I have said, part of the answer depends upon what may be done in the way of rationing to save rubber. Without knowing this unknown quantity and also lacking knowledge as to the duration of the war, I can only say that, insofar as restrictions upon the civilian use of oil are due to transportation difficulties, the oil industry and the Office of Petroleum Coordinator will continue, as they consistenty have, to do everything humanly possible to solve the problem. We shall continue to move all of the oil possible by tank car, by tank truck, by barge and by pipeline. We shall build additional transportation facilities if the steel can be made available or if substitute materials can be found.

But, after all is said and done, it is still my considered opinion that regardless of what may happen in the interior of the country-restrictions

(TURN TO PAGE 84, PLEASE)



Packard commercial cables are really "doing a job" for fleet owners during these busy days. Their scientific design and rugged construction safeguard cable performance under extreme conditions of heat, hot oil, vibration and electrical stress. Packard heavy-duty cables reduce lay-up time, cut operating cost, and go a long way in eliminating elec-trical breakdown in bus and truck service.

Join the fleet owners who get more MPR-more miles

per replacement -with Packard cable. Your Packard jobber will help you determine the type of Packard cable that will provide maximum dependability and economy in your fleet operations. Packard Electric Division, General Motors Corporation, Warren, Ohio.

THE STANDARD WIRING EQUIPMENT OF THE AUTOMOTIVE INDUSTRY



# YOU NEED CASITE EVEN MORE!

Motors run only occasionally get less circulation of oil and more corrosion . . . become dirty and gummy in fewer miles than those driven hard and often.

Casite cleans out sludge and gum from vital areas and keeps them out. And Casite's oil-carrying ability improves lubrication . . . cuts down wear.

Use Casite these two ways: a pint in the crankcase with each oil change; tune-up through the carburetor each 5000 miles.

To make motors last longer . . . and perform better . . . use Casite.

THE CASITE CORPORATION . HASTINGS, MICHIGAN

CASITE

CLEANS OUT MOTORS . KEEPS MOTORS CLEAN

(CONTINUED FROM PAGE 82)

upon the ordinary use of petroleum products will continue indefinitey in those areas which are dependent upon ocean shipping for their normal supplies, Tanker crews are willing to risk their lives in order to move the oil that is needed for victory. But we cannot ask them—and no patriotic American would ask them—to risk their lives in order to meet requirements which reasonable sacrifice on our parts can make unnecessary.

When the States of the Atlantic

seaboard began to feel the pinch of declining oil supplies, due to the disruption of the tanker service, the problem seemed remote to other parts of the country—except the Gulf and southwestern states, the Nation's greatest producing and refining regions. To thousands of people there, the situation was distressing almost to the point of desperation, for it meant that their very livelihood was being threatened by their inability to ship the oil that was mounting ever higher in their storage tanks.

But except for these two areas—and, temporarily, in the Pacific northwest—there didn't seem to be any reason why the worries of the East coast should be of any concern to the rest of the country. Even now, the general public, especially in the Middle West and in the Rocky Mountain area, has not had reason to feel involved. Not so however the members of the oil and transportation industries

Here in the Middle West, for example, there used to be about 50,000 railroad tank cars engaged primarily in the short-hauling of oil. But there are not that many any more! We have taken them away-about 26,000 of them, altogether-to haul oil from the mid-continent and the southwest to the under-supplied eastern states. The places of these transferred tank cars have been taken, in most cases, by the trucks which you gentlemen operate, and the success of your efforts has been spectacular. Busy single trucks are doing the work of ten, fifteen or even more tank cars. But your successful operations can be continued and expanded only if everything possible is done to keep the trucks operating-and operating efficiently. I am confident that Mr. Eastman, the Director of Defense Transportation, will do everything possible to help you in seeing to it that trucks continue to operate in all essential fields.

I can think of certain arrangements which, it seems to me, should be made to assist the trucking industry in this necessary and important job. One of these is the matter of gasoline supply for trucks while they are en route across rationed areas. Trucks are preferred users, but the question is not one of getting enough, but of finding the place to get it. I am aware that most truckers get their gasoline from stations that specialize in this type of service. However, under War Production Board Order L-70, which my office recommended, specialized stations, like all others, have had their supplies reduced by 50 per cent in the East, and 33 1/3 per cent in the northwest.

It has been brought to my attention that this condition has complicated the operations of trucks. Of course, a truck driver can go to other stations, but in rationed areas he might have to go to several before he could

(TURN TO PAGE 86, PLEASE)



# Out to Win

Continental men are doing a job for America by producing War-Winning Engines and buying War-Winning Bonds





All the quality and precision we build into our parts—all the care and skill you use in fitting them into an engine can be wasted—spoiled in the first few minutes of the critical running-in period, because of lubrication failure. That is why Thompson Products, a manufacturer of automotive and aircraft parts, has added this special break-in oil to the Thompson line.

Into this fine, paraffinic base, lubricating oil are patented compounds to increase resistance to heat and oxidation, and to inhibit the varnishes, gums, carbon, and sludge that cause premature engine wear and inefficiency.

Thousands of skilled repairmen now include Thompson Aerotype Break-In Oil as, the final, essential step in rebuilding an engine, or whenever important replacement parts are installed. It protects their good work, adds an extra profit, and gives the customer a better lapped-in job. Fleet owners, too, are finding Thompson Aerotype Oil gives remarkable results as a "regular service oil."

THOMPSON PRODUCTS, INC.
Detroit. CLEVELAND. Los Angeles

"CRANKCASE INSURANCE"
Truly In Line With The Times



PREVENTS
"WELD G," SCORING, SCUFFING

LAPS IN PARTS PERFECTLY

FINISHES

HIBITS GUM AND VARNISH
ATS CARBON AND SLUDGE

Sold exclusively through TP Jobbers in Grade SAE 10 and 20 (50 for aircraft).

Not An Additive You Fill the Crankcase

Thompson AEROTYPE BREAK-IN OIL

GET IT FROM YOUR THOMPSON PRODUCTS JOBBER

FOR NEW AND REBUILT ENGINES-HEAVY DUTY UNITS-DIESELS-AIRCRAFT

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n f. (CONTINUED FROM PAGE 84) fill up his tank. Such a situation results in difficulties and lengthens the traveling time. Moreover, the ordinary station often does not like to serve trucks, because they want as much as 100 gallons at a time, with some of them going as high as 150 or 200 gallons. Besides, the truck requires services which the usual filling station is either not prepared to give, or does not like to give, if its customers are ordinary motorists. I am having this problem studied by

my Office, because it represents a situation that warrants sympathetic consideration and relief, if possible.

I may say in passing that the trucking industry is also vitally interested in the question of rubber. It cannot operate except on rubber tires, so that the utmost conservation of all rubber supplies is of immediate concern.

The question of where to get gasoline, however, is of minor consequence compared to another which has long been a particular burden upon the trucker. I refer, of course, to the numerous and conflicting laws and ordinances of the various states and municipalities, especially those which govern the size of trucks and the weight of the loads which they may carry. As one truck operator has commented: "It would be impossible to build today a practical commercial truck that would be legal in every state."

Now I do not say that all of these state laws and local ordinances have been bad ones, although undoubtedly some are better than others.

From my own observations, I see every reason to believe that no barriers to the free movement of essential goods will be allowed to interfere with your contribution to the successful prosecution of the war.

There is another job that you can do to help win the war in addition to transporting efficiently all of the goods that you can carry. It is a practical one, too. It is the job of helping to clear away the mist that is interfering with the thinking of the American people. There is too much confusion in the minds of the people on questions of the most fundamental importance to our national morale. Some of this confusion, I acknowledge, has germinated in Washington, but a great deal of it has come from ignorant and stupid misstatements, and from loose, purposeless harpooning: not only by a certain type of careless, ill-informed editor and ratio commentator, but by platform pundits and parlor prophets.

Because you circulate widely and have many contacts, those of you who are here in front of me and those who may be listening to me on the air, can help greatly by constituting yourselves messengers of truth. Specifically, you can help make known the facts about oil and rubber.

In closing, may I say that I hope that you of the trucking industry will be able to get the tires that you need to continue your operations. The Nation needs you as much as you need the tires. I hope that you will be able to get gasoline when and where you need it I hope that no legal barriers may interfere with your efficient movement of the goods necessary to hasten our victory in the war, and to maintain the civilian morale that is essential to that victory.

END (Please resume your reading on P. 40)

#### WASTED TIME means OVERTIME

Insure the Efficiency of Your Fleet with the

## "PE KA" TRAVEL LOG

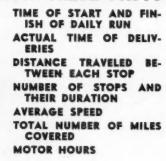
You get the whole story daily:

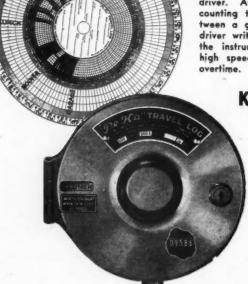
Driver writes his name or time clock number when starting. "PeKa" shows truck started at 8:00 instead of 7:30 A.M.

Traveling time is shown by heavy black cross lines. Stops are indicated by down lines or gaps.

Various stops in one block can be detected and every stop must be accounted for by driver. Average speed is ascertained by counting the black cross line markings between a given time. When truck stops the driver writes—when truck is actually rolling the instrument writes, such as running at high speed, running slow, extra stops and overtime.







"PeKa" Travel Log is the recording device that fleet operators have long wanted—an instrument that records actual facts of their trucks' activities.

Furnished in 12-24-72 hours recording, with or without a mileage counter. Guaranteed for one year.

Send for full details of the "PeKa" Travel Log, and also our Dash Board Odometer, Hubodometer, Tachometer and Counters.

PAUL KNOPF LONG ISLAND CITY, N.Y.

# EQUIPMENT RE-DISTRIBUTION PLAN

can help you to HELP WIN THIS WAR



#### THE NEED

Shop equipment of all types is needed in large quantities in certain sections of the United States and Canada... but in many cases new equipment cannot be obtained because of heavy war-production schedules and material shortages. Particularly needed are Cylinder Boring Bars, Piston Grinders (either cam or plain), Brake Drum Lathes, Engine Lathes, Cylinder Grinders, Milling Machines, Crankshaft Grinders, Planers, Shapers, Boring Mills, Cylindrical Grinders and like equipment.

The ability to obtain even one piece of such equipment in good condition . . . NOW . . . in every case will mean increased war production, or will mean getting an extra truck or bus back into service sooner.

VAN NORMAN has been the name synonymous with service for over 50 years. How better can Van Norman serve now than to build the greatest possible number of Milling Machines, Ball Bearing Race-Grinders, Cylinder Boring Bars, Piston Grinders, Brake Drum Lathes and allied equipment . . . and to supplement this service by acting (free of charge) as the clearing house between those equipment-owners who have machines that are not in use, and those others who badly need these idle machines?

#### THE PLAN

If you have any idle equipment such as that listed at the left, please send us full information as to Type, Make, Age, Model, Serial Number, Motor Specifications, Actual Condition, and Price.

Upon receipt of this information Van Norman will tabulate the returns and publish the complete list in the VAN NORMAN SHOP NEWS. (A thirteen year old publication mailed to every Jobber in the United States and Canada.) The Van Norman Shop News will be mailed to All Jobbers immediately. If you need such equipment, tell Your Jobber and he will write DIRECT to the owner of the particular piece of equipment and buy it for you.

#### DON'T WAIT

If you have equipment that is standing idle send full information direct to the address below.

Remember . . . every piece of idle equipment can be put to work by someone, somewhere, to

HELP WIN THIS WAR

★ In June, 1942, Van Norman was awarded the Army and Navy Star in recognition of its war production record.

#### Write to: CHARLES R. CROWDER

MANAGER AUTOMOTIVE DIVISION

VAN NORMAN MACHINE TOOL CO.

SPRINGFIELD, MASS.

IT PAYS TO VAN NORMANIZE ... which new means to help the War Economy by giving your customers

Van Norman Quality Salvage Work that saves gas, oil, brake linings, parts.

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#### M&D LINE ON SAFETY

(CONTINUED FROM PAGE 50)

out warning. We are of the opinion that to issue information and instructions without checking up on how thoroughly they are absorbed would be a waste of time and money.

A separate Accident Manual is furnished each driver and must be kept in his cab, ready for use at all times. This Accident Manual is really an envelope containing an accident instruction book with a list of names, addresses and telephone numbers of insurance adjusters along our routes; accident report forms for noting necessary information at the scene of an accident; witness cards for use in securing the names of witnesses of accidents or others whom it might be desirable for us or our underwriters to contact in the adjustment of claims. The envelope also contains card on which drivers make preliminary accident reports which are turned over to their supervisors. All drivers are instructed by our in-

surance agents, through personal interviews, as to exactly what they should do in case of an accident. This is in addition to printed instructions. Drivers are required to report all accidents to the safety department as soon as possible.

Another educational feature is the encouragement of camera minded drivers in photographing accidents. We always have two courtesy cars on the road in which a camera is standard equipment. The safety engineers who drive these cars are anxious to train drivers as to the kind of photographs that should be taken, such as general views, close-ups and shots of other evidence. Additional camera instructions of this sort are also given at drivers' meetings.

Please do not get the idea that our safety program is directed only at our drivers. Every one of our fellow workers, whether in office, loading platform, shop or out on the highway is included. If drivers are more frequently mentioned, it is because they must exercise greater care in connection with the safety of the public—and because their responsibility is greater.

It was mentioned previously that much of our educational work is done with pictures. This applies not only to drivers but also to shop men, inspectors and freight handlers. We have slides of all sorts of photos of Mason and Dixon Lines' operations from accidents to truck loading. These slides are shown at practically every meeting of each department group involved, and often at mixed group meetings. An accident due to mechanical failure is of just as much interest to a mechanic or inspector as it is to a driver. The safe and proper handling and loading of freight is something in which body builders and drivers are as much interested as platform men.

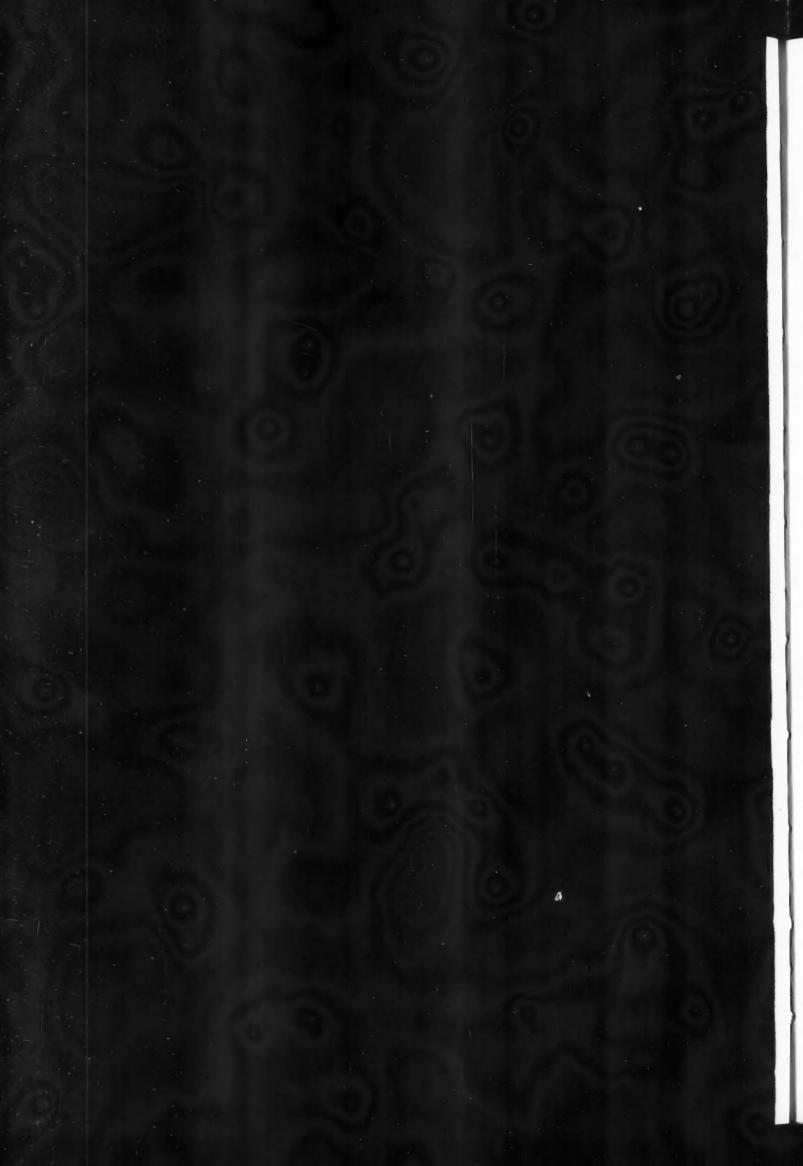
Safety messages are frequently attached to payroll check, a different color of paper or ink being used each time. The messages chosen are appropriate to the work being done in each department.

At each of the company's terminals an advisory safety committee is appointed. These advisory safety committees include representatives of our drivers, shop men, safety department,

(TURN TO PAGE 90, PLEASE)







# Facts and Flashes

From the
Technical Service Department
ETHYL CORPORATION

#### FOR THE WARTIME BUS, TRUCK AND FLEET OPERATOR

1600 West Eight Mile Road
DETROIT, Michigan

Octane values and volatility of commercial fuels are still holding up surprisingly well—considering military demand for high octane gasoline components. However, situation is one of constant change, and operators are advised to keep adjustments of ignition timing and carburetor up to date to hold maintenance costs and power losses at a minimum.

Army "convoys" have priority on roads for emergency troop or material transport. Cross-country operators should check with state police or other war authorities on alternate civil routes now being set up to avoid confusion at time of possible emergency.

Truck Conservation program by Office of Defence Transportation will urge preventive maintenance to truck owners. Practices proved by large fleets are described in booklet being mailed to all truck operators. "Tie-in" with this program offers opportunity to all operators and companies serving trucking industry. Public will learn, for the first time, true importance of U.S. highway transportation.

Obtaining top fuel economy is always sound operating practice. One point well worth checking is the <u>carburetor idle system</u>. Even on cross-country service the idle system can save or waste an appreciable amount of fuel a month—especially where there is much down-grade operation. <u>Idle air-fuel ratio</u> should be as lean as possible and still maintain a satisfactory non-stalling idle.

Unnecessary idling of engines not only wastes gasoline but is likely to prove <u>bad public relations</u>. Motorists whose gasoline supply is <u>strictly rationed</u> may resent truck or bus engine idling for long periods—burning up gasoline they would like to have.

<u>Useful tips on keeping equipment at peak efficiency</u> are available in booklets issued by industry. One such booklet, which has met with general approval from commercial operators, is "<u>Practical Pointers on Engine Maintenance</u>."

For free copy write to Ethyl Corporation.

"Oil is ammunition—use it wisely!"

(CONTINUED FROM PAGE 88)

operating department and other interested departments. They meet "on company time" to discuss operations and hazards with prevention of accidents in mind. At these meetings we discuss the more important subjects brought up at quarterly safety meetings and the various brief informal meetings previously mentioned.

It may seem that we hold a lot of meetings of one kind or another to discuss the subject of safety. We realize that, in theory, the safety department might merely issue safety orders and save a lot of time. But we feel that important changes in safety procedure will receive more wholehearted cooperation when they are "sold" to us by the employees and departments involved than if we were to "impose" them on these same employees and departments.

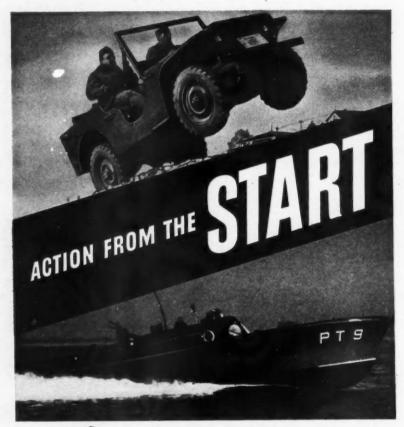
The reader may ask if it isn't the duty of the safety department to originate safety ideas and put them into practice. Certainly it is the duty of this department to originate safety ideas, but before putting them into practice we will usually implant those ideas in the minds of the folks who would have to practice them and let the pressure to put them into practice come from that direction.

Our safety department follows very carefully the training of new drivers and the periodical health and driving competence examinations of all drivers, as described in the June issue of COMMERCIAL CAR JOURNAL by Mr. I. N. Taylor, our Supervisor of Drivers. We consider that safety procedure is something that should be influenced by, and that at the same time should influence, the normal procedure of operations. We want safety made an integral part of all operations instead of being applied as a sort of protective coating.

The final feature of our educational work is the reporting of hazardous route conditions. All drivers, traveling safety engineers, branch shop mechanics and other employees who traverse our routes are requested to note and report, by telephone if urgent, dangerous highway conditions, new construction work, detours, and other unusual or hazardous circumstances. This information is immediately posted on bulletin boards at all terminals affected and drivers are personally warned in writing, by telephone, or by flagging them down along the highway.

Enforcement of our safety program starts with our road check. We keep two courtesy cars patrolling the routes of our system 24 hours a day. In these cars our safety engineers and the engineers of our insurance company cover every highway traveled by our equipment. A great number of reports, sometimes as many as 50 per day, are made as a result of checking not only our own drivers, but landmarks as well at such locations as railroad crossings, hills, villages, school zones, etc. On the basis of these reports we request highway departments to remove road hazards. We give particular attention to drivers' reports of road hazards with a view towards their correction or re-routing.

Check-in clocks are located every 125 to 150 miles (or every four hours of normal driving time) along all (TURN TO PAGE 92, PLEASE)





ASHORE or affoat . . . as our armed forces move into action . . . you'll find Bendix Drives in at the start.

Like 60 million motorists before them, America's fighting men can take their starting for granted. For engineered into the over-all excellence of much of their mechanical equipment are sturdy Bendix Drives, backed by a record of swift, sure starts that runs way up in the billions.

We are proud of the part Bendix Drives are playing in America's war effort. And we are proud of this tribute from the engineers who specify Bendix where so much is at stake.

> Eclipse Machine Division Bendix Aviation Corporation Elmira, New York

# BENDIX DRIVE



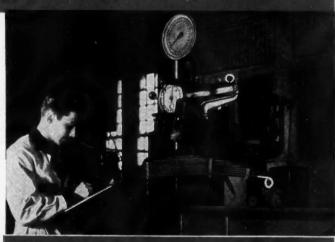
If you watch maintenance costs, If you require quality, Choose

# MAREMONT TRIPLE TESTED **SPRINGS**

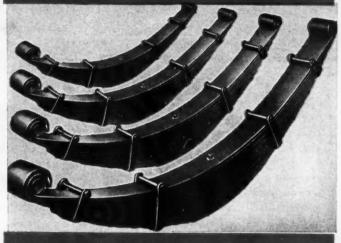
Progressive truck operators, men who keep an eye on performance records, choose Maremont Springs. They insist on proper fit, proper performance and low operating costs. They know that Maremont gives them all three.

The high quality of Maremont Springs is assured by strict adherence to truck manufacturers' specifications in every detail of construction, exacting methods of inspection, and three scientific tests of material, design, and construction. See your local Maremont Spring distributor or write today for further information.

> Install a New Maremont Muffler for Silence and Low Back-Pressure.



Test determines ability of





Maremont Automotive Produc



at 17th St., Chicago, Ill.

JULY, 1942

Use postage-paid card inserted in this issue for free information on advertised products

(CONTINUED FROM PAGE 90) our routes and at branches and terminals. Atlanta, Chattanooga, Knoxville, Kingsport, Lynchburg, Roanoke, Philadelphia, Washington, New York, Asheville and High Point are a few typical clock locations in cities, while there are several others at isolated points along the highways. Many of these clocks are located at combination service station-restaurants where proprietors are glad to have them installed because of the patronage it assures them. All clock-

ing points are selected where there is plenty of parking space off the highway, and several have been chosen at the request of drivers, who have rather definite preference as to where they drink their coffee.

The checking clocks give us a clear idea of average speed maintained between clock stations, and what is equally important, they make it compulsory for drivers to stop and rest, and convenient for driver and helper to change places. The clock stations are authorized rest points where a

short stop-over is required. This reduces unauthorized loitering along the highway and holds down the consequential speeding to make up for time thus lost.

Speeding is not a serious problem with us. We set an absolute maximum limit of 50 mph. before the present tire situation developed. This limit we have since lowered to conserve rubber, but the slower speeds are largely voluntary on the part of the drivers. They realize that the longer they make tires last, the longer their jobs last. We have had an occasional driver whose throttle foot was too heavy. The first thing we do in such cases is to try to find why the driver was speeding; if to make up for lost time-why and where the time was lost. Sometimes it's simply because he gets a kick out of fast travel. If a warning for the first offense is ignored (provided the offense isn't too flagrant), the driver who gets caught speeding after that is laid off for a while to give him a chance to think things over. We have no habitual offenders, because the driver with three strikes on him is automatically out.

There is a personnel folder on each driver, in which his entire record as an employee is kept. Here are the results of his initial and periodical physical examinations; the mileage he has driven; copies of the suggestions he has made; reports on his personal behavior, his credit standing and his environment; his accident record; his relations with our shippers; and how carefully he handles their shipments. We often feel rather pleased when we look through these personnel folders because the records show that our drivers are considerably above the average. But the only credit we, as a company, deserve is for being careful to select men like them and help them maintain their excellence in every possible way.

Recognition of safe driving practice is as valuable a part of our safety program as safety admonitions. In every terminal there is an accident record chart with the name of every one of our drivers listed on it. Every month this chart is revised according to the accidents that have occurred. A gold star after a driver's name means that he has had no acci-

(TURN TO PAGE 94, PLEASE)



out, with absolute accuracy. Easily portable, the set contains just three

units . . . a trammel bar that works without chalk-marks . . . a set of

two matched protractors (1 for each wheel) . . . and an easy-to-read

angle gauge. Handle your wheel aligning with this low-cost, depend-

able equipment.

ING at your shop write . . .

SNAP-ON

8026-G 28th Ave.

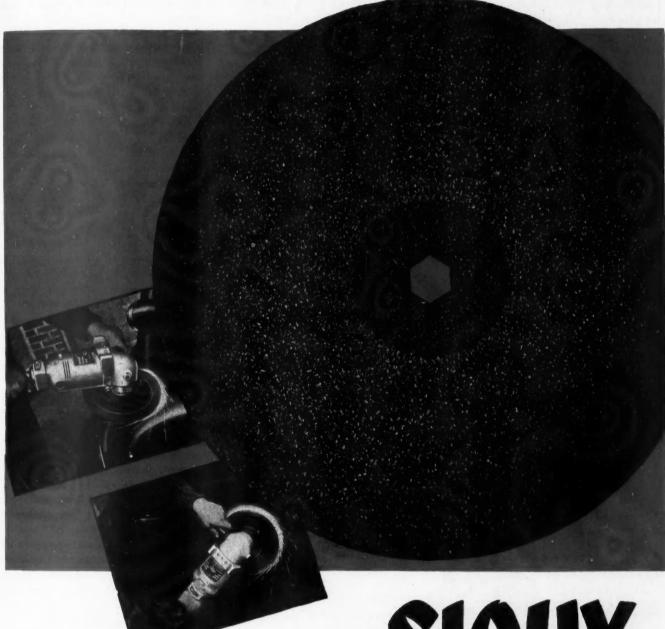
See the Snap-on film "Wheel Aligning

Made Easy." For FREE FILM SHOW-

CORPORATION

TOOLS

Cut Faster . . Last Longer . . Economical



Tough, sharp grains of tempered aluminum oxide are combined with heat resisting phenolic resin on a resin impregnated fibre backing to make the moisture-proof, fast-cutting, longer-life SIOUX PHENOL ABRASIVE DISC.

This sanding disc, even with continuous cutting action, will run cool and clean. It reduces the drudgery of sanding jobs—saves time and boosts profits... It has amazing flexibility for concave, convex and reverse curve sanding.

ASK YOUR JOBBER'S SALESMAN

# SIOUX PHENOL ABRASIVE DISC

STANDARD THE

ALBERTSON & CO., INC.



WORLD OVER

SIOUX CITY, IOWA, U. S. A.

(CONTINUED FROM PAGE 92) dents; a red star indicates a preventable accident; and a blue star stands for a non-preventable accident.

Determination as to whether an accident was preventable or not is made by a mixed "court" of drivers and department heads, as described previously. We feel that it is primarily the function of the safety department to do its best to keep down the number of cases that reach this "court."

Each month all accidents in which

our equipment is involved are studied and analyzed to find what we, as a safety department, could and should have done to prevent them. Even though an accident may be due to violation of safety department instructions, we believe that the failure is partly ours and we want to discover if our instructions were not properly given, or impossible to follow under the circumstances.

Besides the accident charts, there are honor rolls of safe drivers placed in prominent places in all terminals, revised every six months, and framed under glass. Drivers whose names appear on these honor rolls receive emblems and certificates from the National Safety Council, our insurance company and our own emblem. Presentations are made in January and July. The periods for which awards are made include one to six years of safe driving.

More than half of our over-theroad drivers receive these medals and awards at the semi-annual presentation ceremonies, which speaks well for the manner in which our men care for the freight and equipment in their charge in transporting and delivering it in the quickest possible time with the least loss or damage.

Cooperation of all departments is essential in trying to reach a 100 per cent safety goal. Thus our shop is responsible for inspecting and checking safety equipment such as fire extinguishers, fusees, flares, flags, etc. Emergency equipment that doesn't work when the emergency arises is worse than no equipment at all.

Another phase of the safety program in conjunction with local police is a brake inspection lane on one of our Kingsport Streets. Distances on this street are measured and marked; drivers operate their trucks at specified speeds (while carrying loads of different weights), and then apply their brakes. Our engineers measure the reactions of drivers, timing their response speeds with stop watches; measure the distances required to stop the equipment under different conditions; check the performance of the equipment for such things as side sway, unequal braking, dragging brakes, etc. One result of brake tests, and particularly of the holding power of hand brakes, has been the installation of holding blocks as standard safety equipment.

Inspection of all terminals by safety engineers, and vigilant policing of them by terminal employees entrusted with the responsibility, have resulted in the elimination of numerous hitherto unsuspected fire hazards, as well as of hazards that might have resulted in compensation and public liability claims. A standard inspection form is filled in by each terminal and submitted at regular intervals to the safety department.

END
(Please resume your reading on P. 51)



## **BRITISH POOLING**

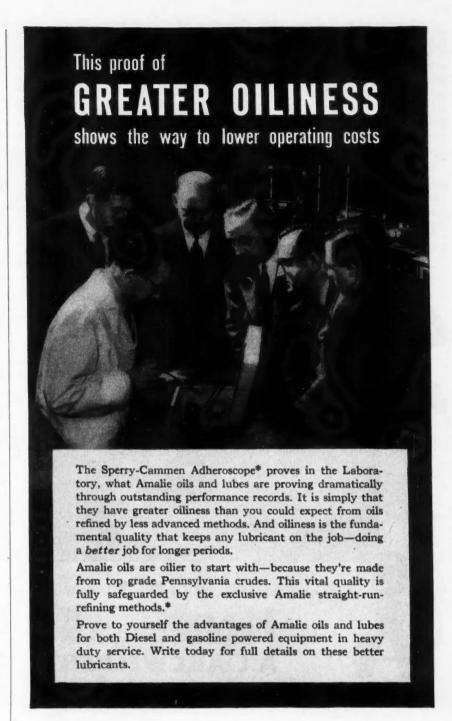
(CONTINUED FROM PAGE 47)

Where the scheme has been found most successful is among department stores, large furnishing houses. and other big retailing establishments selling non-perishable goods. The system which is now working among these classes of traders is simple. By friendly co-operation two or three concerns each possessing an approximately similar sized fleet and tonnage of delivery vehicles, and preferably trading in the same kind of merchandise, have been able to coordinate their deliveries by arranging to deliver in certain districts on specific days of the week only. And although this has meant some curtailment of service to the general public, it has made it possible for only one van, carrying two or perhaps three stores' deliveries, to be found operating in any one district on any day.

Committees were originally formed by local chambers of commerce, leading tradesmen and by mutual agreement, to arrange details of the "pools" in each district. Large numbers of these committees were formed, and after little more than a month the scheme generally (with certain exceptions) proved as successful as when visioned.

However, when attempts were made to combine the deliveries of smaller retailers, it was found that in most cases their deliveries consisted of goods which were ordered for delivery within a few hours, and that these smaller firms were delivering to a comparatively very small and restricted area. It was quickly appreciated that the time factor would not permit the combination of two delivery-sheets by two traders whose goods would intermingle in a delivery pool. It was found that the butcher could not possibly arrange his deliveries with the greengrocer, and that great reticence and opposition were aroused by any proposal that two small retailers of the same class of goods serving the same neighborhood should disclose to each other their sales and customers. Difficulty also arose when a retailer tried to work in with a different class of shop-keeper, as it was found that as orders are usually placed by a

(TURN TO PAGE 98, PLEASE)



- \* LESS SLUDGE
- \* LESS CARBON
- ★ WILL NOT CORRODE CADMIUM-SILVER, COPPER-LEAD OR SIMILAR BEARING ALLOYS.

\*The impartial Sperry-Cammen Adheroscope rates straightrun Pennsylvania oils highest in the field for oiliness.



# PRODUCT OF DAUGHERTY REFINERY

Division of

L. Sonneborn Sons, Inc., New York, N. Y.

Refineries: Petrolia, Pa. Franklin, Pa.

Plant: Nutley, N. J.

(CONTINUED FROM PAGE 97) shopper whilst touring the local shops and who expects delivery within a few hours, any arrangement whereby one van could take these goods out would in practice result in orders being inevitably missed out, and

caused to customers.

For some months now the laundry trade has, under the guidance of its Association, and at the official request of the Government, been sorting out its customers so that one

much disappointment and annovance

laundry only is serving any one district. Before the War, it was a common sight to see laundry vans 50 or even 75 miles away from the firm's works, collecting and delivering laundry. Now competition in the laundry business is killed.

The rationing of petrol and the imposition of many restrictions in the early days of the War, soon made it obvious that uneconomical trade rivalry must cease during the period of hostilities. The housewife who forgot to order a 10-cent packet of

seasoning herbs cannot now insist that her grocer rush it to her immediately, making perhaps a mile drive with the 10-cent packet its sole load. under the threat of transferring her custom elsewhere; for in any case she has to be registered with her grocer, and can only transfer with official sanction-not granted on trivial grounds - and no trader today could run a mile with a small packet only, without committing a moral, if not legal, offence against the nation's war conscience. If he made such a trip, and it became known, it would create actual bad-will to the detriment of his business and hopes of prosperity after the War.

Certain classes of traders whose goods, through short supply, have been experiencing far greater demands than they can fill, have welcomed the pooling scheme as an excellent opportunity or excuse to stop all delivery services. So we find wine and spirit merchants, and other traders suffering from an acute shortage of stock, now only supplying those who call and collect their purchases.

One humourous aspect to the pooling scheme was the complaints made by some members of the public who found their purchases delivered home to them in vans belonging to a type of trader catering for a poorer class of customer than the shops they themselves dealt with, or possibly an item of furniture would be bought for cash from a high-class dealer and vet arrive at the house in a van belonging to a firm who used to advertise nationally their system of extended credit and hire purchase facilities. However, such snobbery (if such be not too unkind a word) at a time like the present, is frowned upon by the great majority of folk here. Anyhow, this difficulty was soon overcome by all vans used under the scheme having their owners' names obliterated or covered over, and displaying only the words "Pooled Delivery Service."

Equitable financial arrangements between the firms operating a delivery pool have not been found over difficult. As has already been said, most co-operation is between two or three firms who are already well known to each other and whose delivery fleets are of more or less equal size, and whose merchandise is of a similar nature. Each van is used, as far as possible, for certain routes,

(TURN TO PAGE 100, PLEASE)



Put your service shop into "high gear" with a versatile MARQUETTE welder. The amazing speed and economy of electric welding is ideally suited to a host of automotive repair and maintenance jobs. Damaged or broken parts are quickly welded to make them as servicable as when they were new, and at a fraction of the cost for replacement.

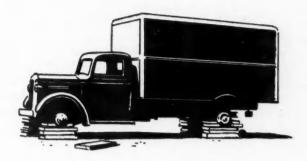
Low initial cost . . . low up-keep . . . ease of operation and superb welding performance makes MARQUETTE the outstanding buy in the welding field.

Send for free, 24 page, illustrated booklet.

MARQUETTE MANUFACTURING CO., INC.
MINNEAPOLIS, MINN.

MARQUETTE

A.C. ARC WELDERS



# What to do about it?

It's tough to turn down orders because you can't get tires to deliver the goods. It's tough to see trucks standing idle for want of rubber.

But we all agree that it's a darn sight more important to keep a tank rolling than a truck, to keep a plane flying instead of a taillight bobbing on Main Street.

So—we want to make the best of it—gladly—do what we can to keep 'em rolling safely.

You can count on us to continue to make the best tires we know how to make with whatever materials we have available. You can count on us to give you, through Diamond dealers, every possible help in tire conservation and maintenance. You can count on us to help stamp out tire profiteering and bootlegging. And you can count on our giving you America's top-quality tire now and at war's end.

We suggest you baby your tires constantly, look to your Diamond dealer for necessary repairs and recapping—and when your tires finally give up the ghost, get good tires.



"Heavy Service" Truck Tires Akron, Ohio • Los Angeles, Calif. (CONTINUED FROM PAGE 98)

the wages of the drivers are shared equally by the firms or in whatever proportion the respective Despatch Managers deem fair and agree to. Overhauls, replacement of tyres and parts, are again mutually agreed upon, and although the scheme has been working only a few weeks such small difficulties as have arisen have been quickly surmounted in a cordial spirit of co-operation. An excellent team spirit has, perhaps curiously, blossomed among Transport Managers of the different firms operating a joint pool; and each of them realizes that the successful and harmonious working of the scheme is essential if their firms are to continue deliveries at all, as if they failed to endeavour to co-operate with each other it would cause still further curtailment of their petrol supplies, and they might in the end have to abandon their delivery services completely or at least most seriously curtail them.

As yet no undue pressure has been

TRUCUT

**Armature Lathe** 

& Undercutter

TRUCU

Armature Lathe

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Mica Undercutter

Tailstock Rest

Gen.Purpose Press

brought to bear on any retailer to work in any pooling scheme, as it has been felt that it is much better to learn by experience what measure of success should attend the new system, allowing tradesmen gradually to fall in line and work together to form their own pools. Indescribable chaos might well have resulted from a definite order from Government that as and from a certain date each and every tradesman possessing a van must belong to a pool.

[Editor's note: Statutory enforcement of retail delivery pooling practices has been ordered in St. Andrews, county of Fife, by Lord Woolton, Minister of Food, following delays among merchants in arriving at a voluntary agreement.]

As regards milk, deliveries in London and all other big cities are not effected by motor vehicle but by pushcarts or horse-drawn vehicle; and it has not been found necessary to make any restrictions or alterations to date. In the country and more sparsely populated suburban districts, dairies have united together in supplying their customers and taking over each other's customers, with the blessing of the local Food Office which issues permits in a number of instances for milk supplies and therefore have a road tally on the areas in which each milk-retailer operates.

The baker is allowed to call at each house only three times a week. If new bread is desired on the interim days, one has to go and fetch it.

Much depends on a trader's mental make-up and personal disposition whether he will make a success of any pool he joins. One trader will be full of grouses, for which he can furnish no logical reason; another trader of the same size and in the same trade and in the same city will tell you how he has cut down his labour and expenses since he became a member of a pool, and is very happy about it all.

Each trade has derived great assistance and advice from its respective trade journals, in the formulation of these delivery pools all over the country. Many London tradesmen regard the pooling system at present as largely experimental, and say they anticipate still further restrictions in delivery services during the coming months.

END

(Please resume your reading on P. 48)

# Don't Junk Old Armatures

RURNED or out-of-round commutators can be machined and undercut like new-with TRUCUT **EQUIPMENT** in your shops.

Conserve critical materials. Repair starter and generator armatures, instead of exchanging them. Make these parts go as far as possible.

Equip your shops with the TRUCUT Lathe, to service starter and generator armatures-keep your trucks on the job. The TRUCUT Lathe comes to you complete with Mica Undercutter and Centering Chucks.

No extras to buy. It's low priced-you save half the usual cost of lathes that claim to do what TRUCUT does.

ORDER YOUR TRUCUT TODAY, or mail the coupon below for complete information.

FRANK N. WOOD CO. Dept. 7-16, Wauwatosa, Wis. Pac. Coast Address—1340 S. Flower St., Los Angeles, Calif.

MAIL THIS COUPON FOR FULL INFORMATION
FRANK N. WOOD CO., Dept. 7-16, Wauwatesa, Wis. (Suburb of Milwaukee) Please send us complete information on ——TRUCUT Armature Lathe and Undercutter; ——TRUCUT Mica Undercutter; ——TRUCUT Tailstock Rest; ——TRUCUT General Purpose Press. Also give us name of jobber in our locality
Name
Position
Company
Street Address
City State
Nature of Business



For large fleets or small . . . long hauls or short . . . summer or winter — Delco Super 9 "has what it takes" to keep the hydraulic brake system ready for action.

Delco Super 9 safeguards against "vapor lock" in hot weather, when frequent braking makes brake temperatures soar. It is just as safe in winter . . . flows freely even at 50° below zero.

Delco Super 9 lasts longer, prolongs the life of rubber and metal parts, and will not break down or form gum deposits in the system.

Standardize on Delco Super 9 for better yearround performance, and keep the hydraulic system clean with Declene flushing fluid. Delco Super 9 is the choice of leading bus and truck manufacturers and of fleet maintenance men.

BUILDING FOR VICTORY

Delco Brake products are "in action" on combat cars and trucks of our fighting forces. Other aromament materials and equipment are being built by the Delco Brake Division to the limit of its facilities.

BRAKE DIVISION
GENERAL MOTORS CORPORATION



Delco Super 9, Declene and Delco Brake replacement parts are distributed by United Motors Service and Bendix distributors.



STANDARD FOR EQUIPMENT—THE STANDARD FOR REPLACEMENT

to

e

to m

as

d

# aug Fig.

Typical MICHIANA Filter. The base castings differ for different installations. Two types of filter elements are available.

# CLEAN OIL CUTS ENGINE WEAR

# Keep Your Fleet Fit For Vital Transportation

FLEET owners and operators well know by this time that filters keep lubricating oil clean for longer trouble-free service... but it is important to select the right make and

type of filter for maximum benefits.

MICHIANA Duo-Flo Filters have proven their oil cleaning efficiency on tens of thousands of motor-driven vehicles of all kinds. They are designed on the double-depth principle to give extra filtering capacity. Thus engine wear is reduced and the amount of oil required is cut to conserve oil for our fighting forces.

The Re-Packable Filter permits of unusually low servicing since only the filtering material, Michiana Wastex, need be replaced in the element.

The Replaceable cartridge or "throwaway" type is similar but the complete cartridge is replaced over the center stud when servicing.

Standard models are made for both gasoline and Diesel engines of various capacities. Start saving your



engines now,—write for Bulletin 839...MICHIANA PRODUCTS CORPORA-TION, Michigan City, Ind.

The replacement of the used "Wastex"

makes the filter as

good as new. Simple,

inexpensive, quick.

With the Replaceable

Cartridge Type, the

used cartridge is

thrown away and replaced by a new one.

# MICHIANA Duo 9 lo OIL FILTERS

## **NEW PRODUCTS**

(CONTINUED FROM PAGE 41)

## P23. Midget Block Sander

A new development in small size block sanders has just been announced by National Air Sander, Inc., Rockford, Ill. The new unit is hand size, 5½ in. long, 4¼ in. high, and weighs only 3½ lb. Chief among the features of this new sander is the elimination of vibration which makes it ideal for close fillet work and small surfaces as well as large areas. The



sander is equally good for metal, wood or composition surfaces. The trigger starter fits the palm of the hand, permitting positive hair-line control. Both wet and dry sanding is possible. The appliance is air operated, using 5 cu. ft. on 50 lb. preserve.

### **P24. Lubricant Additives**

The National Graphite Co., Inc., 17 John St., New York City, is now offering fleets three lubricant aids. These are "Hydrite," which is added to the cooling system for lubricating the system and the water pump; "Lube-Plus," which is added to the crankcase oil for removal of carbon and elimination of sticky valves; "Konage F," described by the manufacturer as an "all-purpose colloidal natural graphite additive for lube oils and many greases."

To meet the demands for a variable, all-spray nozzle, without a straight stream,

### P25. Air Raid Barrel Pump

somebody some good. Mounted on wooden wheels so that it can be easily trundled, the barrel also has side handles for lifting, if necessary. A stirruptype pump fitted to the barrel top provides the pressure. Hose is 12 ft. long and nozzle is adjustable. Specialties



Mfg. Co., Inc., 35 Farrand St., Bloomfield, N. J.

[For additional information on these products fill in and mail the postcard between pages 40 & 41]

END

(Please resume your reading on P. 42)

# SALVAGING CAST IRON BLOCKS

(CONTINUED FROM PAGE 51)

ments and techniques with an open mind.

Most ordinary cast iron welding jobs can be handled by arc welding without pre-heating. The joint or crack in the casting should be chipped out, scarfed, or ground in a "V" or double "V"-depending upon the thickness and shape of the cross section of the parts to be welded. A single "V" should extend to within 1/16-in. of the root, and in the case of welding together two parts, they should be spaced 1/16-in. apart. The double "V," used on castings thicker than 1/2-in., should also be prepared with 1/16-in. root face and 1/16-in. root opening. The included angle of the "V" should be about 90 deg. When only a crack is to be welded in cast iron, less than 3/16-in, thick, it is usually necessary to scarf the crack only slightly more than onehalf the depth. This same rule applies to carbon arc welding with a bronze rod.

Never rush a cast iron welding job. Never hold the arc on the casting continuously for sufficient time to bring the iron adjacent to the weld up to a cherry red color. Always break the arc before the cherry red color is reached. This is a good rule to follow to avoid accumulation of too much heat in the casting which might result in excessive tensional strain when cooling takes place.

Lay short beads, one inch to three inches long, depending upon the nature of the work, and let each bead cool until you can lay your hand on it before starting another one. Place the first bead at one end of the crack or joint, the next one at the opposite end, the next one in the middle, etc. This procedure will help to distribute or equalize stresses.

For motor block work, the most satisfactory rod is a soft, coated steel electrode. This type of electrode is also suitable for welding cast iron parts for any purpose where the weld does not have to be machined afterward, or where the work is to be annealed after welding. It is specially important that all slag be removed from each bead before another one is deposited adjacent to it. Otherwise, entrapped slag is likely to cause gas pockets to form in the weld metal with resulting porosity and weakness. Light peening of each bead is also desired. Care should be taken to peen only on the weld metal. And in all kinds of cast iron work, the casting should be cleaned thoroughly before a weld is even attempted.

END
(Please resume your reading on P. 52)



The Whiting-Plover Paper Co., Stevens Point, Wis., hauls heavy paper loads in extreme weather over all road conditions in this truck powered by an FWD tractor designed to do its hauling job through any kind of weather



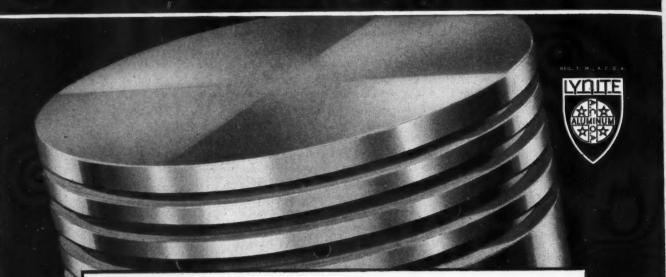
QUIET..



LISTEN TO THE "PURR" of a PAR when it is running... no clatter, bang or vibration... no grumble of strain or stress. PAR'S balanced multiple cylinder design and precision construction eliminate noise... insure cool, quiet, efficient operation. Listen before you buy... and you'll buy PAR!

HOW TO BUY AN AIR COMPRESSOR" . . . . FREE BOOK CHOCKED FULL OF WORTHWHILE TIPS-GET YOUR COPY BEFORE BUYING . . . WRITE TODAY!

# IN AMERICA'S FINEST ENGINES



LYNITE\* PISTONS have for years been original equipment in many of America's finest automobiles. They help engines perform more smoothly and efficiently. They reduce wear and upkeep.

LYNITE PISTONS have also long been favorites with maintenance men. These pistons give new life and smooth performance to old engines.

TODAY you may not be able to get LYNITE PISTONS. We're devoting every man- and machine-hour to making pistons for fighting equipment. But when we've licked the job at hand, OHIO promises you they'll again be available.

\*Lynite is a registered trade-mark of Aluminum Company of America, makers of castings for genuine Lynite Pistons

# THE OHIO PISTON CO.

CLEVELAND, OHIO

# HOW TRUCK OPERATORS ARE SAVING THEIR TIRES



For years, fleet operators have been waging war against the insidious enemies that waste so much rubber. Today, the conservation of tires is more than a patriotic duty — it is a necessity in winning the war.

The staggering burden placed on our whole transportation system cannot possibly be carried unless every single operator guards jealously the mileage in every tire in his possession.

Your U. S. Truck Tire Distributor is proud of the skilled service he has to offer in this emergency. He is equipped to make specific recommendations for your fleet regardless of whether you have two units or two hundred. He has the services of the United States Rubber Company Field Engineer to help him, too.

### ADVANTAGES OF THE "U.S." SYSTEM OF TIRE MAINTENANCE

Based on the same principles that have doubled the mileage of many fleets.

- 1 A practical system of records that requires little expense.
- 2 Makes regular inspection of tires and trucks easier and more certain.
- 3 Makes possible the correction of mechanical defects in time.
- 4 Offers an accurate check of all tires in use—their condition and whereabouts.
- 5 Eliminates all guess work in tire replacement puts it on a scientific basis.
- 6 Furnishes more complete information for rationing certificates.
- 7 Shows the cost-per-mile of every tire and the reasons for any excessive costs.
- 8 Has cut the maintenance cost of every fleet that has adopted it.



Fleet Analysis. An expert inspects every tire on every unit; analyzes the nature of runs as they might affect tire wear; makes specific recommendations for each wheel and truck; prepares a detailed "Truck Tire Maintenance Report" for each operator to use as a guide.



Accurate Records. Tire maintenance is too vital for any guesswork. (a) Tire Mileage Record Card shows the history of every tire; (b) Tire Inspection Record shows the tire history of every vehicle; (c) Tire Change Report furnishes the information for posting to these records (a) and (b).



The Right Tire. War time loads and runs demand the right size and the right number of plies to avoid needless waste of rubber. The right tire for all-round service is the U. S. Royal Fleetway—always famous for the extra long mileage that is now so important in rubber conservation.

SEE YOUR INDEPENDENT U.S. TRUCK TIRE DISTRIBUTOR



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UNITED STATES RUBBER COMPANY



In addition to the 10% improvement in gas mileage which clean, accurately gapped plugs can produce, there are at least three other vital savings.

care of your spark plugs.

First, you eliminate those road interruptions which plug trouble causes. You keep your vehicles rolling. Second, you hold down those maintenance costs which are caused by imperfect fuel combustion. Third, you prolong the life of your plugs.

Thousands of operators are using AC's "run-tested" formula for this conservation. Their experience recommends it to you—

- 1. Check, clean, and regap all plugs every 4,000 miles.
- 2. Replace worn and damaged plugs promptly with new AC's.

Make this a regular rule, and you'll conserve in many ways.



AC SPARK PLUG DIVISION . General Motors Corporation

# RETAILERS MARK DOWN MILEAGE

(CONTINUED FROM PAGE 54)

But this leaves the store with a future problem of how to get needed extra drivers for their sales-days and Christmas peak deliveries; and the store is also losing many of its best-trained men. Norberg has tried out older men as substitute drivers, but reports that they "don't have the snap." The bell-boy type of driver helpers are not skillful enough. The only other possibility seems to be women drivers, but they haven't yet been tried. Another possible solution of the delivery dilemma ahead is to make considerable use of parcel post.

Norberg advised careful attention to equipment care and sketched his own maintenance program. His frequent body check-ups in the shop include-tightening body bolts, repairing minor body damages, re-upholstering driver seats and cushions, new door handles and fasteners, painting and lettering. Also, frequent checkup of spark plugs, points and carburation, tension of valve springs, voltage regulators. Frequent front end inspections and wheel alignments to save tires. Inspection of bearings, king pins, bushings, radiators, water pumps. Testing cylinder compression and valve grinding. Clutch inspections and adjustments. Re-arching and rebushing of spring systems. Tire inspection for proper inflation, cuts, bruises, uneven wear. Change tires every few thousand miles, put spares in service oftener, as deterioration of rubber is far greater when piled in stockroom than in actual use. Build up worn crankshafts by either spraying on material or welding, and also for axle and pump shafts. Watch fan belts, brake linings, grease retainers.

There was much discussion of the problem of adjusting delivery practices to meet the 25 per cent mileage restriction. J. A. Hanley, Delivery Superintendent of the J. L. Hudson Company of Detroit, reported a reduction of 39 per cent in mileage from cuts in their deliveries to three days a week in the outskirts; and by reducing their delivery routes from 150 to 200 miles in some cases down to a maximum of 60 miles, by more use of parcel post, common and contract carriers. He reported but little customer criticism. In fact, before the program was started, the store received a number of customer suggestions about reducing daily deliveries. There was considerable saving also in cutting special deliveries and call-backs. Their hardest problem has been making cuts in their 30,000 miles for store special service cars, such as for handling radios, linoleum, etc. Much of this mileage is by salesmen and servicemen who get mileage payments on their own cars. Hanley has been having trouble in getting even a 15 per cent reduction in this class of mileage. He favors their present store plan of daily deliveries in concentrated customer areas. He reports that customer carrying of packages gives reduction in volume but doesn't reduce mileage proportionately.

Fred N. Iverson, vice-president of United Parcel Service of Chicago, disagreed with this theory, stating that up to certain delivery distances their Chicago experience has shown a fairly close correlation between volume and mileage reductions. However, he did agree that in some of their longer delivery routes, 80 per cent of the mileage was in going to and from the delivery area. Hence, large

mileage savings in cutting the number of such deliveries.

One reported example of this practice in the Chicago area was by Sears, Roebuck & Co., who makes only two deliveries a week in some outlying districts. Marshall Field & Co. also reported delivering only twice a week in some outlying areas. Also, some of the furniture deliveries in the Chicago area are being made only once a week.

Walter H. Shackleton, president of Our Own Deliveries, Louisville, reported reduced deliveries per week in all Louisville stores, and restrictions in their former special deliveries for wall paper, gift packages, etc. These stores started by reducing deliveries to five days a week, eliminating Mondays, but have found that decreased volume of packages through customer carrying hasn't greatly reduced their mileage, since they must cover their routes anyway. Some of the stores have made considerable mileage reduction by farming out their outlying deliveries. In Louisville there is also a special personnel problem, through drivers quitting their jobs and getting \$50 a week as laborers in some of the war industries.

F. F. McGunagle, Detroit Deliveries, Inc., of Detroit, reported the opinion based on his contacts with ODT officials, that where several operators, as an example, are able to combine their deliveries in such manner as to lessen mileage for all of them but one, that the one operator with increased mileage will be "given credit" for his larger mileage total. He reported that the Michigan Public Service Commission, when a registered carrier must change his routes to meet U. S. Government restricted mileage regulations, doesn't even require such an operator to file changes in his state tariff.

Lester P. Snyder, delivery superintendent of Scruggs-Vandervoort-Barney, Inc., of St. Louis, reported that the St. Louis stores were making mileage savings in part by a new rule not to pick up on a call-back any package a customer can carry to the store, excepting a pickup caused

by a store mistake.

A. O. Henzler, general manager of Retail Delivery Co., St. Paul, reported three deliveries a week in St. Paul, with the city divided into 65 delivery units. One of the problems among some of the smaller stores, with only half or less of their former deliveries, is a sufficient storage space for the doubled-up accumulation of packages. "I really think," said he, "that five delivery days a week would accomplish the required 25 per cent mileage reduction and be better for merchants and customers."

There was much debate on the control of mileage of "special service" store equipment—just what it officially might include in accordance with latest ODT rulings. For instance, it was said that ODT orders presumably would not permit a retail store employee sent out to a customer's residence to lay linoleum, also to take along in his car the linoleum to be laid—because a "service car" is not permitted to transport merchandise; but a delivery truck must cover the same route to deliver the linoleum. Likewise, a radio serviceman sent out to set up a radio, however small, must not also deliver the radio in his car.

Another moot question was: "What special materials to be delivered permit, under the ODT regulations, the use of special delivery equipment?" It was generally assumed that the delivery of furniture justified and demanded the use of furniture delivery vans. Likewise, perishable food products requiring insulated or refrigerated truck bodies.

(TURN TO NEXT PAGE, PLEASE)



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when you equip with AC Kleer-Kleen Oil Filters and renew the elements promptly. AC Filters protect oil from dust, dirt, and sludge. Thus, they protect the engine.

Dirty oil clogs the slots in oil control rings, and those rings then cease to function. Clogged slots cut oil and fuel economy, cause accelerated carbon formation, and make an overhaul or ring job necessary

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This many-page, 2color book explains modern principles of oil clarofying and correct filters for gasoline and Diesel engines. It's free. Write for your copy row.



WGB
OIL CLARIFIER, INC.
KINGSTON, N. Y.

(CONTINUED FROM PAGE 121)

It was generally guessed, too, that cut flowers and floral wreathes for funerals and for hospitals might be considered as perishables and justified special trucking service. Contrarywise, it seemed generally assumed that there could be no special furcoat pickups and deliveries; and no delivery of gifts, as numerous stores have been doing.

However, in seeming contradiction to this ODT regulation against the free delivery of gifts, the OPA regulations which recently have come into effect. stipulate that a retail store cannot now charge any more for its goods, or services, than it was charging in March. That is, if in March it was packaging and wrapping gifts free, it could not now charge for extra gift wrapping. Likewise, suppose that in March the store was offering free special delivery of these small gifts. The OPA regulations demand that the free special packaging of the gifts must continue-but the ODT regulations demand that the free special deliveries of these gifts must not continue.

The personnel problem was also considerably discussed in the Delivery Group sessions. There was a special talk on this subject by Thomas Beatson, personnel manager of the United Parcel Service, Inc., New York City. He called the securing and training of help as "perhaps the biggest headache today to a retail store delivery department." He stated that many stores are losing personnel at an alarming rate. Stores with well-established "seniority rules in effect" may have a big advantage in persuading workers not to give up their seniority rights. The needed extra supply of labor must come from draft-deferred men, boys, older men, handicapped workers, women and girls.

In their own New York offices they have been using some handicapped workers, such as deaf persons, secured from various public agencies and trained for certain inside jobs. He thinks women may soon be used more extensively, citing the favorable British experience with women war workers. He mentioned that in several Michigan cities female drivers are being used by cleaning establishments. He suggested an intensified training program, preceded by a personnel audit or survey. Every impor-

(TURN TO PAGE 124, PLEASE)



# TEST THIS NUT on your troublesome body and chassis fastenings...

In spite of 100% war production, we can still furnish nuts for testing. No cost or obligation . . . just specify your requirements.

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Builders of fine Motor Trucka, Tractors, Trailers and Buses since 1910. Capacities from 1½ to 10 tons.

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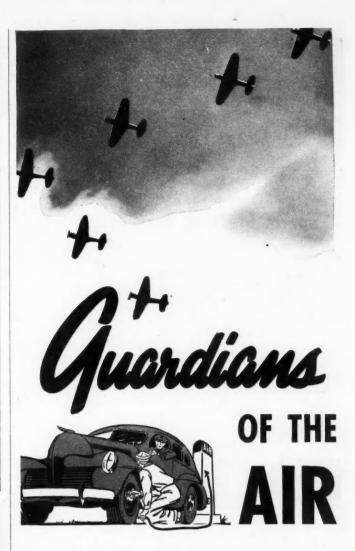
# CAREFUL MAINTENANCE lengthens COMPRESSOR LIFE

Proper lubrication has more to do with compressor life than most anything else. The oil in your Type 30 compressor should be changed after every 500 hours of operation. Use good quality SAE10 or 20 oil. Also don't forget the motor. Oil-lubricated motor bearings should be reoiled every 3 months. Grease lubricated bearings should be regreased every year. Read your instruction book. The I-R branch office or your jobber will be glad to supply one if you have misplaced yours.

Good machinery, properly cared for, lasts a long time and is always the least expensive in the long run.



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There's more air to be guarded these days than that above our rooftops. Air in tires is vitally important too, because correct pressures control tire life. That's the air your servicemen help to safeguard when they inflate tires to accurate pressures . . . when they seal all valves with air-tight Valve Caps. A valve sealed with an air-tight Schrader Cap is permanently guarded.



All Standard Schrader Valve Caps are built with this doubly reinforced sealing unit. Guaranteed air-tight up to 250 pounds pressure.

# Schrader VALVE CAPS

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# MAKE YOUR Cleaning Dollar GO FURTHER WITH MONEY-SAVING OAKITE REPAIR AND MAINTENANCE "TIPS" Speed repairs by degreasing

Speed repairs by degreasing parts the fast, easy Oakite way!

WPB says, "Keep Trucks Running". And if fleet units are to spend more time on the road and less in the shop, maintenance work must be completed faster and easier. That is why we say . . . degrease repair parts the money-saving Oakite way!

Whether applied by tank immersion, steam-detergent or pressure-spray methods, HOT or COLD degreasing solutions made up with SAFE, fast-working Oakite materials speedily, thoroughly remove oil, grease, dirt and grime. Inspection of Oakite-cleaned parts is made more easily . . . repairs get started quicker . . . mechanics turn out better, more accurate work. Write for FREE 36-page manual giving details.

OAKITE PRODUCTS, INC., 26D Thames Street, NEW YORK, N. Y.
Representatives in All Principal Cities of the United States and Canada



(CONTINUED FROM PAGE 122) tant key job should be protected by an understudy being trained. Any male worker at a job which a woman can do should be transferred. Qualified helpers should be advanced to drivers, sheet writers to loaders, etc. The driver training program should include special emphasis on tire conservation and other war-time needs.

The Chicago area reports a contrast to the driver shortage situation in some areas. For instance, when city store deliveries were cut, the United Parcel Service had a surplus of trained drivers. To aid them in

getting other driving jobs, Manager Iverson sent letters to 25 prominent Chicago firms and was able to get good jobs for six of these drivers. Marshall Field & Co. is making an effort to keep all of their regular force of drivers through temporary transfer to other kinds of work; and absences due to driver vacation periods is helping to take care of the surplus up to August 1.

Several fleet superintendents reported special efforts being made to keep in touch with their drivers being drafted in the Army. One company gives each such driver a "royal sendoff" through a group farewell dinner party. Letters and company publications follow him to Army camps, and his picture in uniform and his in-Service letters are published.

Harvey F. Narigan, manager of Downtown Merchants Delivery, Inc., of Buffalo, described the operations of one of the first cooperative delivery companies to be organized in this country, having started in 1913. During 1939 the program was expanded to include deliveries by seven of the larger Buffalo stores and it now includes eight stores. Each of the stores owns company stock. Four to five million packages are delivered annually. They also handle furniture and such specialties as fur coats. It it a non-profit making organization. with charges based on the use of stamps which decrease in unit price with the volume increase of packages from a particular store. At the end of the year any surpluses or deficits from stamp sales are reapportioned.

Some prophecies as to the probable future volume of deliveries from retail stores were made at a general dinner session of the NRDGA by David Ginsburg, General Counsel of Office of Price Administration. "Six months from now," said he, "the production of consumer goods and services will be down roughly 25 per cent from the peak levels of last summer. This will bring us back to where we were in 1935. By the end of next year we shall be down to the levels of 1932. For the balance of this year actual consumption will exceed current production because of the large inventories held by distributors. . . . The pressure on retailers this year is only a foretaste of what 1943 holds in store. Profits will drop and the retailers will face the loss of trained help, reduced transportation service, and the inventory problems

(Turn to Page 126, Please)

# Storling

# MOTOR TRUCKS

BUILT TO "PERFORM BETTER LONGER"

Sterlings engineered for the job, plus proven units and ample built-in safety factors, are backed by more than 34 years of experience in the manufacture of quality heavy duty motor trucks. Specific models are offered for highway transportation, mining, quarrying, logging, stripping, excavating, etc.



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Anthony offers you the hoist with every desirable mechanical feature built into each of 9 super hoist sizes. Whether you buy a 1½ yard or a 20 yard dump body you get e a ch and every Anthony Super Hydraulic Hoist feature. Here is the line of hoists specially constructed for profitable dump truck operation.



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LONGER LIFE BECAUSE OF THESE FEATURES

FASTER OPERATION -

- "Push-Pull" dash control
- Double Arm "Power-Speed" lift
- "Low Mounting Height"
- Special "Rubber Restraining Blocks"
- "Telescopic" hoist frame
- "Floating Gear," Pump, Etc.

Write Today for Complete Sales Manual

ANTHONY COMPANY, INC., STREATOR, ILLINOIS



when used as replacements accomplish two definite and important functions:-

> FIRST Increased operating efficiency

### SECOND

Make up for worn copper wires, which are difficult to replacel

we must all be consider-ate of the problems confronting us, therefore, late or incomplete deli-veries we hope will not reflect against the good

will created between us

America First!

During these critical times

for over 25 years.

ELECTRICAL AUTOMOTIVE

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### J. W. WATSON & COMPANY FORD MOTOR CARS

High at Sixth Avenue COLUMBUS, OHIO June 6, 1942

Kerkling & Company

Gentlemen:

Since installing our engine rebuilding service, we have reconditioned in excess of 1650 Ford V8 motors. All are giving excellent service. Many of these motors have been in constant service more than a year and have covered 50,000 to 100,000 miles. Quite a few of them have been in out shop for a second reconditioning job and the motor blocks are still performing like new - not a crack - not a leak anywhere.

During this time, and in our previous years of Service Shop experience, we have tried many of the so-called makes of materials for repairing cracks in cylinder walls, walve seats, valve chambers, and water jackets. Numerous ones gave temporary relief. It was not until we tried K & W Metallic Seal and the K &

We are now salvaging all our cracked blocks by using the Kerkling methods. Our experience has been so satisfactory, that we are guaranteeing every % & W repair block to give its owner factory new block performance.

Today we feel, it is our Patriotic Duty to SAVE all cracked blocks to aid America in her war effort. It is also a duty we owe to our customers, because of the great service and saving to them over the purchasing of new blocks. Our experience proves to us that engine rebuilders can save millions of cracked blocks and millions of dollars annually to their customers by adopting the K & W Metallic Seal and the K & W Mechanical Method of Repair.

Sincerely yours,

J. W. WATSON & COMPANY Authorized Ford Dealer Engine Rebuilders

A. Billinging

# AGE

Cracked Motor Blocks and Heads can be PERMA-NENTLY repaired with K & W METALLIC SEAL and MECHANICAL METHOD.

K & W repaired Motor Blocks and Heads are TODAY serving on EVERY FRONT IN AMERICA.

# K & W Announces

OPENING OF NEW CRACKED MOTOR BLOCK RE-PAIR SCHOOL TO AID AMERICA IN SALVAGING
MILLIONS OF CRACKED-BLOCKS AND HEADS TO HELP WIN THE WAR.

TUITION FREE TO MECHANICS OF JOBBERS, DISTRIBUTORS, ENGINE REBUILDERS, DEALERS AND SERVICE SHOPS, WHERE CARS, TRUCKS, TRACTORS AND FLEETS ARE SERVICED. ALSO FREE TO FARM AND INDUSTRIAL EQUIPMENT MANUFACTURERS-DISTRIBUTORS - JOBBERS - STATE HIGHWAY DE-PARTMENTS, ETC.



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Gentlemen: Mark with N

☐ Please send us complete information on K & W Metallic Seal and mechanical method for repairing cracked motor blocks and heads.
☐ I am interested in your Mechanical Repair Service School—Advise me earliest date I can enroll, etc.

Name of Firm\_

Street City\_ State Signed by\_ \_Title with Firm\_ Name of Your Jobber\_\_\_\_

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Use postage-paid card inserted in this issue for free information on advertised products



WHEELERS

for 11/2 to 5 Ton Trucks



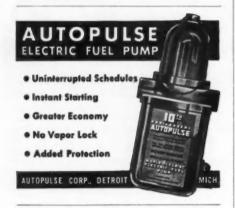
Greater tonnage . . . more profit. Increase carrying capacity up to 20 tons. Extend frame to any desired length. Losa kept in perfect balance . . no teeter sept in perfect balance . . no teeter or end-sway. Simple, sturdy, no intricate parts. Timken bearings; steel castings; hydraulic brakes. Easily installed in 3 hours. 3 sizes. LOW COST.

ONE OF THE PIONEERS
Also makers Little Giant Frame Extensions, Hand Hoists, Wrecking Cranes Write for Circulars, Low Prices

LITTLE GIANT PRODUCTS. INC.

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Peoria, Illinois









A complete line of LANDING GEARS - - -HORIZONTAL, VERTICAL and FOLDING TYPES.

Write for complete information on "SAFETY PROPS" and FIFTH WHEELS.

AUSTIN TRAILER EQUIPMENT COMPANY (CONTINUED FROM PAGE 124)

that are involved in the extension or

rationing. . . .

"Expensive methods of sales-promotion-credit restrictions and deliveries ought to be unnecessary, for the trade as a whole, at a time like this, for the simple reason that buyers will take all the goods that industry can let them have, and be glad to get them."

The problem of "fuel rationing" was discussed by P. T. Hawkins of the Fuel Rationing branch of OPA. before a joint session of the Store Management and Delivery groups. He prefaced his talk with a frank statement that the paper he would read had been authorized by the Fuel Rationing division and their legal department. He reviewed the then status of gasoline rationing, only along the Eastern Seaboard and added: "That it may be extended to other parts of the country, within the very near future, is regarded as a very definite possibility." He summarized the rubber shortage situation and added: "To date, gasoline rationing appears to be the most equitable and convenient means of controlling the use of automobiles (to save rubber) ... But it is hoped," he later added. "that gasoline consumption, through the curtailment of motoring that is purely for pleasure and convenience, will make it unnecessary to ration fuel oils."

There were rather sharp follow-up remarks by Irving C. Fox, Washington Counsel of NRDGA. First, on the fact that the talk must be OKed by the OPA legal department, with the comment that "It is my experience that most of the lawyers in Washington are inexperienced both in law and business. . . . I am very pessimistic," he added, "over the condition of both gas and oil-it is a political question as well as an economic one. . . . Your safeguard (in getting these and other rationed materials) is your own ingenuity rather than anything the Government can do for you, as against any expectations in the easing up of Government restrictions."

Before another like joint session with the Delivery group, John G. Petritz, of the ICC Bureau of Motor Carriers, talked on "Motor Transportation Regulations Affecting the Retailer." He reviewed problems in motor vehicle rationing; shortages in

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Level-Ride TRUCK SEATS

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- Saves war materials
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— Specially Designed for —
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If Costs No More for Trucks Specially Built to Fit Your Needs. Have Our Engineers Visit and Analyze Your Operation.

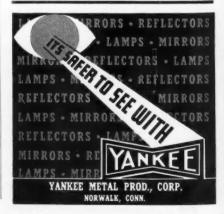
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PLASTIC LENSES

Real economy; no loss of effi-ciency. BOWMAN Plastic Lenses withstand road shocks and ordinary hard was and ordinary hard was and ordinary hard was a service. Red or Amber.

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Spray-Painting Equipment—Spray Booths—Canopy Exhaust Systems —Exhaust Fans—Air Compressors —Hose and Hose Connections— Oil Guns.

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TOLEDO, OHIO

Distributors or direct sales and service representatives available everywhere.



trained operating personnel due in part to Army personnel needs; and the problem of rubber scarcity. But he expressed to personal conviction that motor transportation would continue to be well protected.

"Incoming motor or rail transportation to retailers," he said in substance, "will probably not be affected much. You will continue to have motor transportation for the duration, since special consideration will always be given to motor carriers as a public convenience and they deserve more consideration than private carriers." However, he was not so defensive of motor delivery trucks. "If there is any one phase of the life of Americans which is luxurious," he added, "it is the habit of retail deliveries to which Americans are accustomed, due chiefly to competition."

Discussion at the Traffic Group sessions brought out reports of considerable increase in loss and damage to both rail and truck shipments, presumably because of slower movements from traffic congestions, and the employment of new and untrained shipping personnel by the carriers. The report of the Transportation Committee also brought out discussion about seeming trends on the parts of the rails, the motor carriers and the freight forwarders to discontinue free pickup and delivery services. It was reported that such a trend was in the "discussion stage," but that no public hearing had yet been set on the proposal.

On this subject, the session passed the following resolution: "We recommend that the NRDGA oppose any move on the part of railroads or motor carriers to discontinue accessorial services."

Other traffic items especially relating to motor carriers which were presented in the report of the Transportation Committee "for information only—no action required" included:

Proposal of Motor Carriers to Limit Their Liability for Loss and Damage. . . . (This is a proposal, made by the National Traffic Committee of the ATA, to limit the liability of motor carriers in much the same way as the Railway Express Agency, to apply to all kinds of merchandise in all parts of the country, and the report states that "your Transportation Committee is definitely opposed to any such proposal.")

(TURN TO PAGE 128, PLEASE)

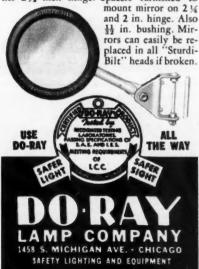


DO-RAY SUPER STURDI-BILT TRUCK MIRRORS
With or Without Clearance Lamp
No. 1329. Can be extended 29 in. from body.

No. 1329. Can be extended 29 in. from body. Hinge bracket has 2 ¼ in. opening. Spacers furnished to mount mirror on 2 ¼ or 2 inch hinges. ½ bushing. Anchor strap to securely hold mirror in place. Mirror head 6 ¼ in. overall. Adjustable to any position. Made of heavy material throughout. Specially processed mirror, backed up with a copper coating. Mirror held in place with rustless metal bezel. Heavy Bumper Guard.

# MIRROR FOR SMALL TRUCKS

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AND WE CAN PROVE IT! WRITE TODAY.



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BUELL MANUFACTURING CO. 2988 Cottage Grove Ave., Chicago, Illinois

# VALLEY SUPERDUTY CHARGER

# Meets 1942 Conditions













(CONTINUED FROM PAGE 127)

Proposal of Motor Carriers to Limit Their Liability on Clothing from New York to Philadelphia. . . . (Also opposed by Committee.)

Regulations of Sizes and Weights of Motor Vehicles. . . . (This item of the report states that the Traffic Group favors, with certain amendments, Senate Bill No. 2015 to empower the ICC to regulate sizes and weights of vehicles where state laws are unduly restrictive. However, in view of the fact that Secretary of Commerce Jesse Jones has reported that all 48 states have agreed to reciprocal licensing arrangements and to uniform standards for trucks, the Committee reports that "many in the transportation fraternity believe that no Senate action should be taken until it has been proved that the action upon the part of the states does not remove the trade barriers to the defense effort.")

At the final session of the Traffic Group of the NRDGA, Arthur D. Bibbs was re-elected chairman; and W. C. McDermott of Woodward Lothrop Co., Washington, D. C., was elected vice-chairman.

(Please resume your reading on P. 56)

### Truck Performance Study Shows Need for Wider Highways

Immediate relief from traffic congestion caused by slow-moving vehicles on hills is possible through widening road surfaces to permit passing at points of most serious congestion. This conclusion is based on a study by the Public Roads Administration of the hill-climbing ability of trucks. Other results of actual grade tests show that for trucks to even approach reasonable speeds on grades, it will be necessary to: (1) reduce grades to three per cent or less; (2) or double engine power; (3) or reduce gross weights excessively; (4) or some combination of these must be used. It has been pointed out that to resort to any one or combination of such methods would be too costly and impractical of immediate accomplishment. The widening of road surfaces has been suggested as affording the quickest relief, according to the Administration's report.

### Chevrolet Campaigns Truck Conversion

Near exhaustion of the supply of heavyduty trucks focuses attention upon the necessity of converting so-called "medium" trucks to take over the big haul operations. Special conversion equipment is available for accomplishing this change and to this end Chevrolet dealers are receiving from the Chevrolet truck department specialized mechanical information dealing with truck



THE TRAILER COMPANY OF AMERICA

CINCINNATI OHIO



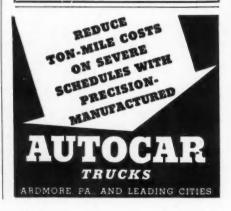


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# to Real Trucking Economy ... without ACCURATE Mileage Records

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tires. If you have the proper priorities, you can get Veeder-Root facts-in-figures that point out any chances to save on gas, oil, tires, repairs Write. Veeder-Root Inc., Hartford, Conn.

# Yeeder-ROOT HUB ODOMETERS

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Whatever your requirements, if your problem is to transmit power at an angle, our field and factory experience of more than 30 years is at your command. Our Engineering Department will gladly submit quotations covering your requirements.





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PERMALUX "KOLORFILM" decals offer greater durability and economy in application and maintenance. Completely synchronous with modern truck finish, they last longer . . look better!

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ET US rebuild your Chevrolet or Ford truck for heavier duty or special service.

We have the experience, the equipment and the facilities in our nation-wide distributor organization.

Inc. TRUCKSTEL CLEVELAND



# RATIONING REPORTS

(CONTINUED FROM PAGE 46)

Colo.; S. Arthur Henry, Colorado National Bank, Denver, Colo.

Alternate members: Earl F. Buckingham, Buckingham Transportation Co., Denver, Colo.; K. B. Charlesworth, G. M. Denver-Salt Lake-Pacific Stages, Inc. Denver Colo. Inc., Denver, Colo.

District No. 15-Oregon and Washing-

ton; headquarters at Portland, Oregon.

Regular members: Alfred Hampson,
Dey, Hampson & Nelson, Portland,
Ore.: Arthur Lee, Lee & Eastes Auto
Freight Co., Portland, Ore.: Kenneth
Pheister, Safeway Stores, Inc., Portland, Ore. land, Ore.

Alternate members: Ellery Sills, Si ls Truck Service, Portland, Ore.; R. W. Lemen, Oregon Motor Stages, Portland,

District No. 16-Southern California and Arizona; headquarters at Los Angeles, Calif.

Regular members: Charles G. Anthony, Motor Truck of Southern California, Los Angeles, Calif; A. D. Ferrari, Bohemian Distributing Co., Los Angeles, Calif.; George W. Rourke, 802 Mullen Ave., Los Angeles, Calif. Alternate member: John E. Carroll, Signal Trucking Service, Ltd., Los Angeles, Calif.

### **Retreads Rebound**

The OPA is taking steps to eliminate careless workmanship resulting in premature failure of tires that have been retreaded. In a letter to all OPA state directors, these officials have been asked to obtain from local boards the names and addresses of retreaders against whom there have been excessive complaints about the condition of workmanship on retreads and recaps.

### More Trucks Released by ODT

The Automotive Branch of the ODT has announced that during the week ended June 20, it released 1957 trucks, truck trailers and miscellaneous vehicles to civilian users and holders of Government Exemption Permits.

Since the start of the rationing program March 9, a total of 41,801 vehicles of all types have been released to civilians and holders of Government Exemption Permits. Of this amount, 3819 light. 9836 medium and 3936 heavy trucks, 2649 trailers and 23 miscellaneous vehicles were for civilian use and 7457 light, 9997 medium and 2835 heavy trucks, 876 trailers and 163 miscellaneous vehicles were for GEP use.

(Please resume your reading on p. 47)



Collansible

4CLOSED - OPEN

Heavy galvanized wire suspended from rings which slide on a round track. "Chain Link" weave as is used in hest quality fence. Protects against theft and loss. Easy to open and close. Weave collapses within itself, saving space. Bigdly made for long, hard service, yet it is so light in total weight that zverage gate weighs only 90 lbs. Easily installed by owner's men. Satisfaction guaranteed. Quantity Discounts—Distributors Wanted.

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# KOETHERIZING

The accepted process for restoring pistons to original factory fit.

Every pulled piston should be Koetherized.

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### JONES PORTABLE TACHOMETER



The world's largest operators of commercial vehicles use Jones Porta ble Tachometers to check engine speeds for tune-ups, and setting governors, etc. Here are a few: Standard Oil Co., of La., N. J., N. Y., Shell Petroleum Co., Atlantic Refining Company, Tidewater Oil Company

Direct, instantaneous reading

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# IMMEDIATE DELIVERY

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# AND CHASSES

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# KINGHAM TRAILER CO.

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Both "V" TYPE and ONE WAY BLADE TYPE

hand or power hydraulic control FOR ALL MOTOR TRUCKS

Write for catalog 38AC and 38BC with discount to truck dealer CARL H. FRINK, Mfr., CLAYTON, 1000 Isl., N. Y DAVENPORT-BESLER COPP., DAVENPORT, IOW. FRINK SNO-PLOWS OF CAN. Ltd., TORONTO, ON

# Testers Increase

The world's largest manufacturer of Trucks uses "KING" Testers as standard equipment in their many companyowned service stations. The primary purpose is to keep their customers' trucks operating at the highest point of efficiency at all times. "KING" Testers will reduce labor costs and keep your Fleet operating at 100% efficiency.



Proper tune-up is a big gas saver. Official tests proved that with proper tune-up, and after making the necessary minor repairs, an average increase of 17.3% of gas was obtained. A "KING" Tester with an Exhaust Gas Analyzer will soon pay for itself. The WH-450 has the following "KING" units which may be purchased separately: (1) Ignition-Coil and Cam Angle Tester. (2) Oscillator Type Condenser Tester. (3) All-Electric Spark Plug Tester. (4) Exhaust Gas Analyzer with dual vacuum fuel pump test. (5) Electro-Tachometer (R.P.M. Indicator). (6) Generator Voltage - Regulator Tester.

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Free-lathering, easy-rinsing Mobo is quick about restoring the good looks of a dirty vehicle. But equally important, its 100% pure and mild vegetable oil base is easy on finishes. Mobo's cost per

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Dissolve grease, oil and grime from motors, chassis and running gear. Removes dead wax from bodies. superior to gasoline, and leaves no greasy film. For safety's sake, use it on slippery floors and grease pits; on tools and equipment for greater efficiency in handling.



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Territory available AMERICAN STEEL FOUNDRIES

Specify . . .

**XACTO** Printing Pump To Check Fuel Deliveries at the Pump

AKRAFLO Fuel Consumption METER to Check Fuel Consumption at the Motor

S. F. BOWSER & CO., INC. 1360 Creighton Ave. FORT WAYNE, INDIANA



# NEWSCAST

(CONTINUED FROM PAGE 58)

### WPB Halts Truck-Trailer Production After July 1

The War Production Board on June 25 ordered a halt to production, effective July 1, of commercial-type truck trailers for non-military use, with the following statement:

"After the end of this month, no manufacturer will be permitted to produce any truck trailers having a load-carrying capacity of 10,000 lb. or more, except for the Army and Navy, certain designated government agencies, governments of the United Nations and for deliveries under the Lend-Lease Act.

"Restrictions contained in the order do not apply to third axle attachments, which have performed valuable services as substitutes in relieving the shortage of heavy trucks. Application of a third axle to a two-axle truck permits a substantial increase in load capacity.

"The number of trucks in the heavy class of 16,000 lb. gross vehicle weight and upwards is lessening rapidly, with the result that the strictest conservation for vitally important uses connected with the war effort becomes imperative.

"Operators and owners of heavy trucks are giving excellent cooperation by their obvious efforts to use trucks of lighter gross vehicle weight in the medium class, if possible. Often it is found practical to substitute a medium truck with a semitrailer to provide a load-carrying capacity greater than that of the heavy truck that would be used under ordinary conditions. The substitution is not always conducive to the best economy, but it emphatically helps the war effort by conserving heavy trucks for the oil fields, mining, and heavy logging operations directly connected with material production."

### Ceiling Set for Anti-Freeze

The OPA has announced ceiling prices for anti-freeze for the coming winter. The new price levels have been determined for retailers, manufacturers and distributors, and became effective June 30.

The regulations set a separate series of maximum prices for anti-freeze manufactured from ethylene glycol, and for the types produced from ethyl or methyl alcohol. In general maximums set for the permanent types of anti-freeze are based on prices charged for the past three years; other forms are prices somewhat higher than the average for the past few years.

### Motorized Units Planned

Formation of motor transport units for troop movements and emergency civilian transportation is being undertaken by Office of Civilian Defense and ODT. Under plans being considered by the two agen-cies, units will consist of 24 trucks or buses with carrying capacity of 40 passengers each. Each unit also may include a five-passenger automobile, a service truck, a tank truck and a light pickup truck, "depending on local conditions."

(TURN TO PAGE 134, PLEASE)





# AIR COMPRESSORS CAR WASHERS LIFTS

Curtis Pneumatic Machinery Division of Curtis Manufacturing Company

1970 Kienlen Avenue, St. Louis, Missouri



### FINE Oldforge TOOLS



Oldforge Screw Extractors or Backout Punches are hammer forged from fine alloy with or without left hand twist.

Write for catalog of complete line of auto-motive and aircraft tools.

QUALITY TOOLS CORP. New Wilmington, Pa.



Ask your jobber or write us for details on complete line

HEIN-WERNER MOTOR PARTS CORP.

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Pace-Setters in Design Adjustability • Customer-Satisfaction

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GUNK **CLEANS** 

**New Army Lustreless Paint** Preserves 100% Camouflage . . . No Shine

This versatile, emulsifying solvent anticipates every military and industrial grease cleaning problem . . . especially effective cleaner for small arms and cannons.

THE CURRAN CORP., Mfg. Chemists, Malden, Mass.



# WONDERWELD

The Guaranteed Repair for Cracked Blocks, Cylinder, and Valve Ports.

Simple, easy to use—no complicated equipment or special training necessary. Quick acting—works in 30 minutes! Highly Imitated But Never Equalled!

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rding to a conservative estimate, if every car and truck had its dis balanced, it would mean an annual saving of 108,000 tons of er that is now being literally ground off the tires. It would mean longer truck life because of reduced vibration. Balance your wheels with L & H Weights. They fit all styles of rims and rings.



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Write for

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with Snugl BALANCE A wheel, one ounce out of balance, develops a pounding force of approximately 12 pounds. Today, especially, you can't afford this

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Merely correcting camber, caster and toe-in does very little good, so far as stopping excessive tire wear is concerned, when the real cause lies in mechanical defects such as bent axles, housings and spindles, mismetad springs or sheared center-bolts. Locating these mechanical defects is now a simple matter. The Micro-Linor does it all in a few minutes—without even using a jack. Get the low-down on this new tire-trouble analyzer which, by means of a "tracer Wheel", checks wheel-roll in a new way—with the truck actually in motion.



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There's an easy way to do it, too: Use an EVERHOT Electric BRANDING IRON, then record them in the EVER-HOT Tire Cost System.

Irons have ten digits (0-9) on the disk, making possible any combination of numbers.

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# OSHKOSH

4 Wheel Drive Trucks

A proven product. 11/2 to 10 ton capacity. Write for complete information.

# OSHKOSH

Motor Trucks, Inc. Oshkosh, Wis.





# TO KEEP THEM ROLLING



THE TIMKEN ROLLER BEARING COMPANY, CANTON, OHIO (CONTINUED FROM PAGE 132)

### July Tire Quota Up For Trucks, War Workers

A larger tire and tube quota for July than June was permitted by the Office of Price Administration in reflection of normal seasonal factors and increasing employment of workers in war occupations which make them eligible for tires under rationing regulations.

Truck tire quotas for July provide more new tires than were allotted for the current month, but there has been a reduction in the number of recaps and inner tubes made available. The quota of new truck tires for July is 268,925, compared with 247,715 for June, while the recap quota is 314,896 against 365,014, and the tube quota 299,265 against 309,116.

Increasing tire wear and failure during the hot weather months is given recognition in the larger quota for July. Quotas are higher in all tire classifications except recapped truck tires. In this connection, the OPA took into consideration a higher proportion of blowouts that can be expected during hot weather. Moreover, there has been an increasing number of reports of truck tires becoming unfit for further recapping through carcass "fatigue"-the relaxing of the tire body caused by long use and frequent recapping.

Except for the new Grade II tires set up in a separate category for qualified war workers, all the new tires in the July quota are available only for use on vehicles eligible under List A.

Driver T. A. Dykes, employed by the Great Southern Trucking Co., At-lanta, Ga., is credited with saving the home of H. E. Hamlin of Parrott, Ga. Dykes saw the house afire, dashed into the dwelling with his two-quart Pyrene fire ex-tinguisher carried in tinguisher carried in his truck and sprayed the fire. He also aroused the sleeping family and helped them to safety.

Among driver Dykes other accomplishments, besides alert-ness, is his safe driving ability. He was recently awarded a 10-year safety medal



# Milk Delivery Plans Okayed

The Office of Defense Transportation and the Department of Justice have approved six voluntary plans for conservation of milk trucks covering operations of more than 200 dealers. The majority of these have placed their deliveries on an every-other-day basis. Estimated mileage deductions in some instances went beyond the required 25 per cent. Cities affected and the number of dealers in each are: six in Washington, D. C.; 19 in Indianapolis: 38 throughout Pennsylvania: 15 in Detroit; six in Madison, Wis.; nine in Flint, Mich.; 97 in the New York and New Jersey metropolitan area; 51 in and around Buffalo, N. Y.

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# HEAVY-DUTY Clutches Insure Maximum Clutch Life

★ 20 ball-hinged levers for uniform pressure, smooth engagements, easy disengagements.

Parallel disc contact. No localized burning. Long facing life.

Warp-resisting pressure plate.

Warp-resisting pressure plate.
Rigid cast iron construction. ★ Forced internal air cooling.

Write for Full Information

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PISTON RINGS

The FREE RUNNING Rings with the SAFETY CENTER UNITS

QUICK IT LASTS!

See your Jobber or write WAUSAU MOTOR PARTS COMPANY 2400 HARRISON BLVD. WAUSAU, WIS

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The right light for the right job

GO TO LIGHTING HEADQUARTERS YOUR K-D LAMP JOBBER

K-D LAMP CO.





MILWAUKEE DUSTLESS BRUSH

CO.



GREASE RETAINERS SEALS

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Key - Seal - Dash Control Types



FULL ENGINE POWER and ACCELERATION COMPACT - NEW FEATURES - TAMPER PROOF

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Over and above the manufacture of essential automotive accessories, our engineering and manufacturing facilities are wholeheartedly dedicated to the supreme task of helping America and the United Nations win Victory.

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# HOLLAND CAN "TAKE IT"

The smartest, most improved unit of its type, Model V-400 Vertical Lift Landing Gear is especially adapted for heavy duty service.

Powerful—rugged—dependable.

Complete truck and trailer equipment.

Catalog on request.

HOLLAND HITCH CO.



Newark, N. J.

Binks new catalog No. 80, showing everything necessary for spray painting and finishing, is now available and may be obtained by writing to the Binks Mfg. Co., 3114-40 Carroll Ave., Chicago, on company letterhead. The book includes information on spray equipment



# Improved Rubber Reclaiming Method

United States Rubber Co. has developed a method of reclaiming used rubber which improves the quality of the reclaim, saves materials, and reduces the processing time so drastically that it increases the capacity of certain existing equipment by sixty per cent, it has been announced by that company.

By this method the processing cycle is reduced from 16 to 9½ hours. And at the same time the quality of the finished reclaim is improved because of a change and a reduction in the chemicals used in the process, according to W. G. Kirby, manager of reclaim development of Naugatuck Chemical Division, which operates the reclaim plant for the rubber company.

# Effects of Rubber Shortage

Reduced highway revenues and declining business were the major effects of rubber shortages; according to a survey conducted in 36 states last month by the National Highway Users Conference. Automobile mileage reductions in some states varied from 14 per cent to 20 per cent in April, 1942, compared with the same month last year. A 43 per cent reduction is anticipated in 1943 over 1942. Businesses affected were mostly those closely related to transportation needs.

### Horses Replace Trucks in Army

The War Department has begun the replacement of more than 1,500 administrative motor vehicles with animal-drawn vehicles at Army posts, camps, and stations throughout the country.

The first phase of this new step in the Army's campaign to conserve rubber resulted in the replacement of 580 trucks at 47 posts by the Quartermaster Corps, Services of Supply. The entire program is expected to save approximately 315,000 lbs. of rubber a year.

### Arc Welding Manual

"Lessons in Practical Arc Welding," by Chaffee. 188 pages. 1942 copyright. Paper cover. Published by Hobart Trade School, Inc. 75 cents per copy. Special prices to schools. This book contains the complete series of 41 arc welding lessons offered at the Hobart Trade School. Chapter heading: include Preliminary Instructions; Starting & Manipulating the Arc: Welding Common Joints With Bare Electrodes: Welding Light Gauge Sheets with Coated Electrodes; General Welding With Coated Electrodes in the Flat-Horizontal-Vertical-Overhead Position; Pipe Welding; Welding Cast Iron; Special Practice & Tests. Text also contains a suggested classroom procedure and ready reference index. The complete line that completely satisfies



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The Fitzgerald Mfg. Company
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Give your trucks the best service you can get—the kind you find at International's 250 Companyowned service branches and at thousands of International dealer service stations. Keep America's trucks rolling for VICTORY!

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For a Smooth, Safe Ride at Lower Cost, use

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**Hydrau-Matic Shock Eliminators** 



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